

# **Economic Policy and Planning in Developing Countries**

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DARCY CARVALHO**



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# Economic Policy and Planning in Developing Countries

by

József Bognár

Corresponding Member  
of the Hungarian Academy of Sciences



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Translated by  
**Gedeon Dienes**

Translation revised by  
**Jenő Rácz**

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## Introduction

This monograph attempts to establish and classify the norms and correlations of rational economic and political actions which may contribute over a longer period to the acceleration of economic growth in the developing world. The author looks upon the problem of growth in the developing countries as a specific and novel one, more complicated than all situations and types of growth known so far. Evidently, the human endeavours, attitudes and actions to examine and solve this complexity of specific, unprecedented and extremely intricate problems are part and parcel of the uninterrupted struggle mankind is waging for a better and more equitable world. We believe, indeed, that the revelations and errors, the feverish efforts and the sad disappointments, the proud achievements and the grave failures accompanying the industrious research of long decades into this complex of intricate problems will all have a deep impact on the future of human civilization. The more so because a comprehensive system of rational economic and political actions has not developed in the advanced countries either, and their possible scope (which is, at present, limited to the national economy) has proved too narrow in our world characterized by the interdependences between nations and continents.

The problem of rational action cropped up first in political economy but it obviously has much wider implications; it is indispensable to act rationally also in other fields of social life, including the various kinds of governmental activities. As a result of this recognition, a new discipline—praxiology, according to the unforgettable Oscar Lange—has developed.<sup>1</sup> Rational action is required in economy because the available goods and other resources of development are scarce; they must be invested so as to yield the maximum surplus enabling us further to expand the scope of economic activity. Rationality—in the case of quantifiable objectives—is measured by the relation between means and objectives, inputs and outputs. This relation can be formulated in two different ways, i.e., according either to the principle of the greatest output or to that of the smallest input. Obviously, these two variants of approaching the problem are equivalent.

In our age, rational economic action is possible in any socio-economic system but its content and sphere vary depending on the character of the system. Where

<sup>1</sup>O. Lange: *Optimális döntések* (Optimum Decisions). Közgazdasági és Jogi Könyvkiadó, Budapest 1966.

capitalist ownership relations prevail, the investments, for instance, will not be increased unless they promise "adequate" profits for the capitalists; in socialism, on the other hand, the scale and the differentiation of the material incentives called upon to promote economic activity must necessarily result in an income distribution proportionate to the work performed, since this is one of the basic principles of socialism.

The actual trends in rational economic actions are affected also by other factors: by the sphere of decision and action (macro- or micro-economy), the amount of means available for the achievement of an objective (since, e.g., extreme scarcity of the means imposes limits on the alternatives of rational action), by the foresight of the organs deciding on, and carrying out, the action, by the nature of the various sectors operating within the economy (for instance, the traditional sectors are not yet able to act rationally, the sector of small-scale production can so act only within certain limits); finally, by the adaptation capacity of the economy, i.e. the elasticity of the sectors and enterprises in bringing their actions in harmony with the changing conditions.

Hence the problem arises, for what kind of economic and social regime we are going to establish the norms of rational action and what politico-economic factors (power centres) shall represent for us the starting point for such action.

This monograph considers the progressive governments of the developing countries to be the inducers and centres of rational economic action. It is, namely, our firm conviction that the problem of long-term economic growth can only be solved successfully by a progressive government. We therefore deliberately refrain ourselves from elaborating norms of rational actions for conservative governments or reactionary opposition movements.

It follows from this starting point of ours that we examine and approach the rationality of action from the macro-economic angle. Nevertheless, we must not fail to take into account the continuous presence and operation of economic forces and sectors whose rationality, taken in the micro-economic sense, differs from, or perhaps conflicts with, the postulates of the national economy. Hence the macro-economic optimum cannot be found by a simple mathematical method of programming, independently of the interests and endeavours of the various sectors, enterprises and individuals. The simultaneous presence of several sectors in an economy means—particularly under progressive governments—that they are functionally necessary or at least must be reckoned with on account of the given power relations. In such cases the rationality of governmental action is expressed by its capacity to induce also these sectors to act in compliance with the objectives of economic growth. This cannot be achieved unless the laws governing the movements of these sectors, including the norms of rationality in the micro-economic sense, are taken into consideration. It follows that the rationality of a governmental action is a compromise between the ideal rationality (i.e., rationality seen from the angle of society as a whole), and the micro-economic rationality (i.e., the rational interests of the sectors, enterprises and individuals). This "governmental" or macro-economic interpretation of rationality derives, in the first place, from

the mixed character of the economy, yet even in a homogeneous economy certain conflicts deriving from the presence of particular interests would occur and may even have some positive role.

Since we consider the progressive governments as the initiators and carriers of rational economic action, we must also define what kind of government we regard as progressive. The notion of progress is an all too general, relative and subjective concept. Terms like capitalism or socialism are more easily understood, defined and accepted although these, too, display great differences in their manifestation in any one historical period (for instance, capitalism in present-day Spain and Norway), and in their successive stages of internal development (for instance, the system of socialist economy in the late thirties and in our days).

In view of all this, it seems more expedient to start from the concept of the "progressive" government (political regime) for two reasons. First, because for several decades to come we shall have to reckon with political, social and economic conditions in the developing countries which cannot be considered either capitalist or socialist. Such conditions are usually termed "transitional", which seems an admissible denomination although it must be amended that, in an exact sense, there have never existed in human history "mature" socio-economic conditions that could have been clearly defined as belonging wholly to a certain socio-economic system, and therefore all periods known so far should have been determined as "transitional". It is a postulate of human thinking to collate the situation, the phenomena and processes of a society in a given period with the conception, endeavours and expectations according to which it was originally shaped and proclaimed by the political forces in power. Yet the situation, the phenomena and processes existing in any given period are not the direct resultants of an officially proclaimed conception but partly the survivals or consequences of some past situations, phenomena and processes, and only partly the result of the endeavours and decisions connected with the actually prevailing conception.

No progressive government is able to change the inherited social and economic situation in perfect accordance with its own endeavours and intentions, to determine the objectives and rate of development irrespective of the given order of things. But, in order to be able to follow a definite tendency, the government must be guided by some kind of compass. And this compass cannot be anything else but a *system of targets* that can be deduced from the great democratic traditions of mankind, from the endeavours of the second half of the 20th century and from the prevailing conditions. So it is evident that the progressive governments must make every effort to achieve human equality and social justice, gradually to liquidate the privileges and monopolies rooted in social position, wealth or education, with due regard to the social power relations and human emotions. They must act in the interest of the basic masses of the nation and must be supported by these masses. So they have to establish such political institutions as seem most suitable to shape and express within legal frames the people's will and to develop political public thinking. The progressive government is meant to direct economic growth while preserving a relative equilibrium and gradually improving the living condi-

tions of the toiling millions who carry the burden of growth. It must prevent the creation of economic conditions that could give birth to new privileges (for instance, unjustifiably high profits of the domestic capitalist sector). These criteria or norms of action are evidently incomplete and not sufficiently exact; but it is hardly possible to say much more today.

If the social and economic conditions that are going to take shape during the coming decades in the developing countries are qualified as transitional, the question *where this transition is leading to* will evidently have to be answered.

The answer to this question can, naturally, be approximate only, i.e. some alternatives can be excluded, others defined but left open.

The alternative of capitalism taken in the commonly accepted sense of the term can, in our opinion, be excluded since the economic development of these countries started very late and with extremely scarce means to support it. Under such conditions the decisions and the energies launching growth cannot derive from economic life. On the contrary, a free market mechanism taken in the classical sense would even obstruct domestic economic development and directly hamper it through the processes of international trade.

On the other hand, it is also quite clear that the situation from which development must be started—including certain live traditions, an inherited system of values, many institutions and economic circumstances in the developing countries—is radically different from what prevailed in the now socialist countries of Europe at the time when their socialist transformation was started. Thus, the transitional period of most developing countries will also be different. It is expected to last two or three generations, whereas the now socialist countries, owing to their more advanced economic, social and cultural level, have been able to shorten this period of transition.

Despite these great differences it seems likely that in the value system of the progressive countries willing to fight for social justice, equality of all nations and to introduce up-to-date production and economic methods, the socialist elements will eventually prevail.

Economic growth, accompanied by great social and political changes and often even by repercussions, has proceeded from either of the two basic positions during the past two centuries. Although history has produced different variants and combinations of these basic positions, the main difference between them has always been that in the first type the necessity of change derived essentially from the economy, in the other type, from politics. In the first case the starting energies necessary for economic growth were accumulated in the economic life itself. Accumulation of capital is, however, only one element of economic growth; further elements are the redistribution of manpower, the extension of the market, the possibility of investing the savings profitably. All this, then, makes it inevitable to transform the socio-political conditions in compliance with the requirements of economic growth. In the past, this transformation took a revolutionary form in some countries, in others it was achieved through gradual reforms. And although the guidance of the revolutionary or gradual transformation was invariably concentrated



in the hands of the political power factors, all successful political transformations have always been fed by, and have always given new impetus to, economic growth.

The economic growth of the developing countries, obviously, does not start from this type of basic position since their economic life is underdeveloped, the energies feeding growth are scarce, the norms of rational economic activities have not yet become generally accepted. Hence the driving force of the change comes from the side of politics, i.e., from the best sons of the nation who have recognized the grave consequences of economic backwardness and want to liquidate it by trying to induce economic growth, capital accumulation and concentration. These endeavours, however, require and presume the transformation of the existing social and economic institutions, traditional customs and ways of thinking. Only after such a transformation will the national economy be able to master the difficulties involved by growth and structural changes and, at the same time, to fulfil its fundamental function of supplying the rapidly growing population on a gradually improving level.

It is easy to see that the second type of growth is more difficult and complicated than the first. There is, however, no free choice between the two types as historical circumstances determine unequivocally which of the two ways must be followed in a given country. It is easier to accelerate the growth of a relatively advanced economy than to start a backward one growing. Yet, however great the difficulties and dangers concomitant to the second type of development may seem, the progressive governments must start on it. It is their moral, humanistic and patriotic duty to launch their country on this path strewn with difficulties and dangers.

From the interdependence of political and economic actions it follows that, when starting and accelerating economic growth, also the political actions must be rational, otherwise the most rational economic actions will be condemned to frustration.

The rationality of the political actions, however, is not a completely clarified notion. While the rationality of most economic actions can be quantified, i.e. measured by the ratio of outputs to inputs, the rationality of a political action in itself cannot be measured in such a simple way. Statesmen are considered successful if they achieve the aims set by themselves (provided these aims are in harmony with the requirements of the age and with the given circumstances). Posterity sometimes condemns a statesman for having asked from his nation too high sacrifices in order to achieve certain aims (which, in themselves, were absolutely correct) if his measures elicited civil war or provoked long lasting social and political tensions. In such cases even posterity is unable to judge unequivocally; opinions will differ according to the convictions of the various political groups or individuals. As a rule, the opinion of the progressive groups will be that sacrifices are inevitable in the course of social and economic development; whereas the conservatives will say that the very fact of sacrifices proves the irrationality of an action, irrespective of its aims and outcomings.

It is evident that political actions involving very great sacrifices must run high risks since, when they fail to hit their aims, a general disappointment may set in

which, coupled with a real economic disequilibrium, may bring about a social tension favourable for the reactionary opposition. And even if the progressive government were able to master the situation, its sphere of action would be seriously restricted.

These considerations indicate that the questions associated with the rationality of political action are far from having been definitely elucidated by science. It seems that in some matters of minor importance we are inclined to act with great accuracy and foresight but in some fundamental questions, such as the objectives of a nation or the problems concerning the future of mankind as a whole, we sometimes act without scientific background or, at most, in a "technocratic" manner. (By this term we mean the type of action in which the *aims* are being set without a correct scientific foundation, and it is only in the selection and application of the *means* that we proceed more or less scientifically.)

It is perhaps possible to measure the rationality of a political action by its political results. In the narrower sphere of our monograph, however, the best we can do is to measure it by the economic consequences, i.e., by the positive or negative effects on economic growth.

Viewed from this angle, a political action is considered as rational if it meets the following requirements:

- the social and political conditions of economic growth must be attained at the price of the least amount of social tensions, conflicts and crises,
- the overwhelming majority of the nation must be induced actively to contribute to the economic growth,
- the incomes must be distributed and redistributed according to the principles of social equity, and must encourage such economic activities as are favourable for the growth process,
- economic growth must be achieved under relatively favourable international political conditions and with a minimum of conflicts with other nations,
- it must be adequately supported by all other fields of government activity, including education, public health, etc.

These requirements, however incomplete, may give an idea of the interdependence of political and economic actions from the angle of economic growth, and of the necessity of their synchronization. This is a very intricate task since the political actions, on the one hand, and the "pure" economic measures, on the other, are affected and governed by different power factors, i.e. are subjected to different, often contradictory influences.

Synchronized action means that a progressive government, wishing to start economic growth must run along three different lines of policy, mutually presupposing and influencing one another.

a) It must consolidate its new political power and, on the basis of the new equilibrium conditions, create the political institutions serving and initiating a new line of political action. It must make possible the free discussion of the new tasks facing the nation and encourage the organized alliance of all patriotic forces for the fulfilment of these new tasks.

b) It must transform gradually the production conditions and particularly the ownership relations in a manner to co-ordinate the normatives of rational economic action with the fundamental aims of the political regime and with the requirements of economic growth.

c) It must maintain comparatively stable economic equilibrium conditions (or, at least, a state of tolerable imbalance) permitting a rapid economic growth and contributing to the gradual liquidation of the economic backwardness, i.e. to the diminishing of differences existing between the country and the advanced economies.

Synchronization means, consequently, to co-ordinate the different sets of actions serving these three interdependent groups of targets. The contents, the direct and indirect effects and the duration of the various processes induced, as well as their critical periods must be co-ordinated and timed in a way permitting to achieve the maximum of effect with the least sacrifice, tension and imbalance. It follows that the political and economic actions serving these three interdependent target groups have *no particular rationality of their own* (i.e. have no partial optimum solutions). They can be regarded as rational only if their *combined* effects justify the *combined* amount of sacrifices.

Moreover, the synchronization of actions includes some necessary *time lags* between the political and economic actions serving the same target. The political action *must* precede the economic action at times of crisis and *can* precede in other cases, but the time lag cannot be chosen arbitrarily. (Let us note here that we consider the first two of the target groups, i.e. the consolidation of the political power and the transformation of the ownership relations as predominantly political aims, whereas the third group of targets, the raising of the economic level, is considered as preponderantly economic.) The possession of the political power certainly helps the transformation of the ownership relations. But when economic growth must be achieved with very scarce means, different types of ownership must coexist because each has its specific function in the growth process. On the other hand, all economic sectors contributing to growth must have their own political representations, and this must be taken into account when shaping the political superstructure. The character of the political superstructure, in turn, is determined by the economy, i.e. by the transformation of the ownership relations and of the general economic level. It may occur that the political power is able to act at a greater speed in transforming the political and economic conditions. The rationality of such a speeding-up depends on its political and economic consequences. If it produces extreme social tension and, by this, the weakening of the political power, then a more moderate pace is indicated, otherwise certain sectors and forms of ownership would disappear and their absence would hamper economic growth or even lead to economic crisis. If we accept that the political and economic actions serving economic growth have no separate "rationality", and that their rationality exists only in their relation to one another, it becomes evident that a hasty action by the government may lead to a growth crisis instead of accelerated growth.

The growth crisis, which will be discussed at large in Chapter 17, consists of serious imbalances and setbacks in the economy and leads to even graver consequences in politics. An economic setback increasingly stimulates the forces which, owing to material interests, traditional or other reasons, oppose the transformation of the ownership relations. These forces are joined by those who wish to see in the growth crisis the bankruptcy of the governmental policy. A growth crisis may cause a political crisis even under socialist ownership relations, and lead to the collapse of the government responsible for the events. It is thus obvious that a political action eliciting economic disequilibrium causes grave political crisis indirectly, i.e. through the economy, and leads to a substantial weakening of the power or, in more serious cases, to its downfall.

When weighing the political consequences of the growth crisis it must be realized that an exceptional frequency of tensions is to be awaited in developing countries during the last third of this century. Economic growth is meant to liquidate institutionally the inherited tensions (poverty, starvation, diseases, etc.) yet it induces temporarily (that is, for a few decades) new types of tensions without being able to liquidate the old ones. While people accustomed to live under traditional economic conditions hold nobody responsible for their misery, famine and epidemics (for they feel that these are part and parcel of human existence), those who, in the course of economic growth, have joined the world of commodity production and got acquainted with new living conditions, will inevitably call to account the central power for their situation. This attitude, by no means justified, is understandable since it is the government that starts economic growth and takes the responsibility for all economic actions, processes and situations.

These cumulative tensions are fed from four main sources:

1. Tensions deriving from the untolerability of the inherited situation which—as we have seen—may temporarily extend over larger areas than ever before and, if the coherence of the new state is still weak, may lead to the sharpening of the conflicts between provinces, nationalities and tribes.
2. Political tensions associated with the coming to power of a new political regime or with the creation of a new state. Acute political struggles may evolve between the supporters of the new regime and the opposing political forces. The situation becomes particularly dangerous and even fatal if internal political conflicts split the forces supporting the new regime. A new state will necessarily attempt to settle many problems in a novel manner, problems that used to be settled according to the traditional customs and order. Thereby the state's pure existence is a threat to the authority of some traditional social institutions.
3. Economic growth, simply by the fact of development, produces many new situations eliciting tensions and conflicts. When, for instance, the traditional community turns into a commodity-producing one, the old and "equitable" order of income distribution is abandoned yet the needs of the members of the community cannot yet be met appropriately. Part of the rural population goes to town without finding jobs. The extension of economic activity increases the demand for

food, consequently the prices go up. In order to raise its revenues, the government increase the taxes, etc.

These phenomena are understandable; they are part of the economic growth desired by most people, yet when economic equilibrium is established on a very low level, even its slight disturbance may create tremendous tensions.

4. In our days the international tensions and the political struggles between the great powers exert a certain effect on all countries. The more so because economic growth produces a host of new ties linking the country with the rest of the world. Thus the changes in the international political situation induce, in turn, more and more tensions. International political tensions may be enhanced by the fact that the great powers, except the Soviet Union, have no respect for the policy of positive neutrality and non-alignment of the developing countries. The imperialist countries, especially the United States, use aggressive methods, threats and sanctions against the developing countries professing the principle of non-alignment (cf. the political complications concerning the corn delivered by the USA to the UAR and India). It may also happen that the internal forces fighting for power try to find allies abroad. Thus the political equilibrium conditions are severely tried by the sharp and sometimes civil-war-like political situations, and also the conflicts existing between the world powers may flare up on new territories, that is, in one of the developing countries.

In a society living among, and struggling with, many inherited and new tensions, it is particularly important to take all major political and economic decisions with utmost circumspection. In the course of implementing the decisions meant to transform society and economy, new tensions go on arising without the older ones coming to a rest. In such a manner the tensions assume intolerable dimensions, contributing to the strength of the adversaries, creating phenomena of anarchy and weakening the government.

Therefore the progressive governments should assess, beside the political power conditions, also the nature and distribution of the tensions present in the society. It is not expedient to create or tolerate an amount of tension that may lead to a political imbalance. If the new measures producing major tensions are inevitable, then efforts should be made to mitigate the old ones. When assessing the anticipated reactions, allowance should be made for the possibility that the attitude of certain layers, groups or communities may assume "irrational" tendencies since society as a whole has not yet adopted the norms of rational economic actions. (An irrational behaviour or reaction in this connection only means that the reactions of certain layers, groups or individuals are still being determined by the way of thinking and value system of the outdated social formations and institutions.)

We have so far examined the synchronization of the political and economic actions from the angle of the impact the economic situations have upon the political power relations. It must, however, not be forgotten that even the so-called "pure" political relations cannot be separated from the general situation and advancement of the society and economy. Certain political institutions as, for instance, the political parties, the parliament, the mass organizations are

taken over from the advanced world. Their adaptation to the local conditions is far from being perfect; they are still under the influence of foreign rules and ways of thinking. For instance, political parties of the advanced countries were formed at a time when tribal feelings had for long been liquidated and when conditions had ripened to rally and organize certain social layers of the nation having identical interests. It is evident that a party mechanism originally formed under the conditions of advanced class societies is unable to function under primitive class conditions and strong tribal relations which substantially differ from the patterns evolved in the advanced countries. The political struggles in the developing countries have certain aspects and characteristics that would be inconceivable in advanced national states where "class parties" dominate. These characteristic features of the political struggle manifest themselves, in addition to the fights for power with the adversaries, also in fights within the inner circle of power.

After the seizure of power every progressive regime must reckon with sharp differences of opinion or even conflicts cropping up within the leading political party and the government. This is evident since, in a mature society, the institutions and the economic relations determine the course and limits of political action in both positive and negative senses, whereas in a newly formed society, such limitations are much less effective, as the old institutions no longer have a binding effect and new ones are not yet stabilized. Hence the possible alternatives of political action seem to be unlimited; fantastic, doctrinary or inconsiderate conceptions can acquire a much wider scope. Since in the government the majority is usually made up of those who have a realistic and progressive view on what to do, and since conservative forces in some form or other are also taking part in the government, it is evident that struggles within the power often become acute. If in the course of the internal struggles, owing to the pressure of the extravagant or doctrinary forces, the institutions of political power are being transformed too rapidly, the leading political core may lose the support of the majority of the party and government. This is the time when the so-called "second revolutionary surge" takes place, i.e. when the leaders endeavour to liquidate their adversaries, or else the forces outside the power (such as the army) intervene. It may also occur that this second wave immediately follows the first.

History shows that the second revolutionary surge obviously requires more sacrifices from the nation than the first one and shakes the very foundations of the new regime. If the cohesive forces are weak, even the state may dissolve.

It is thus evident that the dynamic superiority of political action over the economic one is illusory: an irrational pace of political progress may be fatal not only indirectly (i.e. through the economy) but also directly, in the political power sphere itself.

It logically follows from the above that, in the process of economic growth, the political and economic actions must by all means be synchronized. The synchronization should start from the assumption that the progressive governments will have to reckon with a "transitional period" embracing several generations. (As it has been said before, we consider as "transitional" such social and economic

conditions as cannot be termed either socialist or capitalist on account of their characteristics and history and of having no unequivocal and definite criteria of classification.) The time when the transitional period ends depends on the state of economic development. This period will not terminate before the developing countries attain the state of economic advancement which, under our present standards, would be termed "medium", i.e. become capable of ensuring a high rate of economic growth from their own resources. Only if these objectives are attained can a comparative harmony be created between the fundamental endeavours of the progressive government, the forms of property functioning usefully in meeting demands and the general development of the economy.

If the three series of independent actions are synchronized over a longer period, the economic growth becomes quicker and comparatively more even.

If the three sets of governmental actions are not synchronized, there will perhaps be some periods of spectacular growth but these will be followed by severe economic setbacks and growth crises. From the political angle the periods of radical progress may be followed by heavy political fights, by internal struggles that sometimes lead to civil wars, to the seizure of power by the army and to the weakening of the progressive political movements.

It follows that, under otherwise identical conditions, economic development will be started more quickly and at the price of less suffering in countries whose progressive governments are able to synchronize the political and economic actions.

Much later and at the price of much more suffering and crises, economic development will probably start also in the countries whose governments were unable to synchronize the political and economic actions. Nevertheless, in such countries—as history shows—the political disturbances concomitant to growth crises destroy from time to time a substantial part of the results and achievements attained in the more favourable periods.

History can, however, also show examples of how countries living under particularly bad leadership and unfavourable conditions survived for centuries in a state of political and economic stagnation.

In our world pregnant with world-wide interdependencies, similar situations will turn out to be tragic for the people of the country in question yet also dangerous for the international political situation in the decades to come. Political and economic progress will assert itself sooner or later at any rate, although sometimes it may be arrested in such countries as are unable to grasp the necessity of the changes and the significance of adopting contemporary ideas.

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In writing this monograph, the authour has been guided partly by purely scientific purposes, i.e. such as affect indirectly the life of mankind and society, and partly by practical ones directly influencing human actions.

Viewed from the theoretical angle, the aim of every worker of the social sciences is to develop, polish and improve the pattern of human thinking, emotions and

ethics. We rely on the conviction, corroborated by the history of mankind and science in spite of many pitfalls and contradictions, that we can act more correctly, safely and efficiently if we are aware of the laws governing the human world, created by ourselves yet reaching far beyond us by its processes, occurrences and intricate interdependences. And more correct, safer and more efficient actions have perhaps never before been needed as much as in our days, in a world driven and accelerated by nuclear energy. Society is the creation of man and is therefore extremely sensitive and rapidly changing. Its situations and institutions that seem so stable and firm that they are considered almost "natural" in common thinking rely, in reality, on very complicated equilibrium conditions of a perpetually moving system.

We do not realize this unless these complicated equilibrium conditions are upset by some force, and the existing institutions of society stop functioning. What follows from this kind of approach to the states and institutions of the society is, of course, not the reluctance to act, since a moving equilibrium can only be maintained by permanent actions. Yet in shaping our actions a very wide circumspection is wanted since they should not only be directed to meet new requirements but also to maintain the equilibrium conditions whose components result in part from situations evolved in the past, i.e., under conditions different from those at present.

As far as practice is concerned, we have been guided by two major aims. We have tried to designate the practical foundation of actions directed toward the objectives of economic growth for the progressive government ruling or coming to rule the developing countries. For this purpose we have tried to outline the background, environment and expected effects of economic actions, and also of political actions often preceding those.

The developing countries, however, when left to their own human and material resources, are unable to start and maintain the process of economic growth in equilibrium. That is why we have tried to warn, as also others have done, the international public opinion and all those who feel responsible for the future of mankind, for the necessity of rapid and rational actions. Rapid and rational action does not merely involve aids and credits but also a certain regrouping of the economic resources in order to bridge gradually the gulf existing and constantly widening between the patterns of distribution of resources and of population over the world. Under the present conditions, these two objectives cannot be approached satisfactorily.

When outlining political actions and assessing their impacts it should be realized that the science of political action ("praxiology") is still in its infancy. It is not yet possible to generalize the experiences gained in the developing world.

The science of rational economic action, i.e. economic praxiology, is somewhat more advanced, but only in relation to the national-economic and entrepreneurial levels. At present there do not exist such international power centres or organizations with adequate interests and means attached as could evaluate the rationality of economic actions from the angle of mankind as a whole, i.e. on the inter-



national level. Without these, the regrouping of the economic resources can only be achieved upon the consent of the national economies and of the big enterprises extending their influence beyond the national borders.

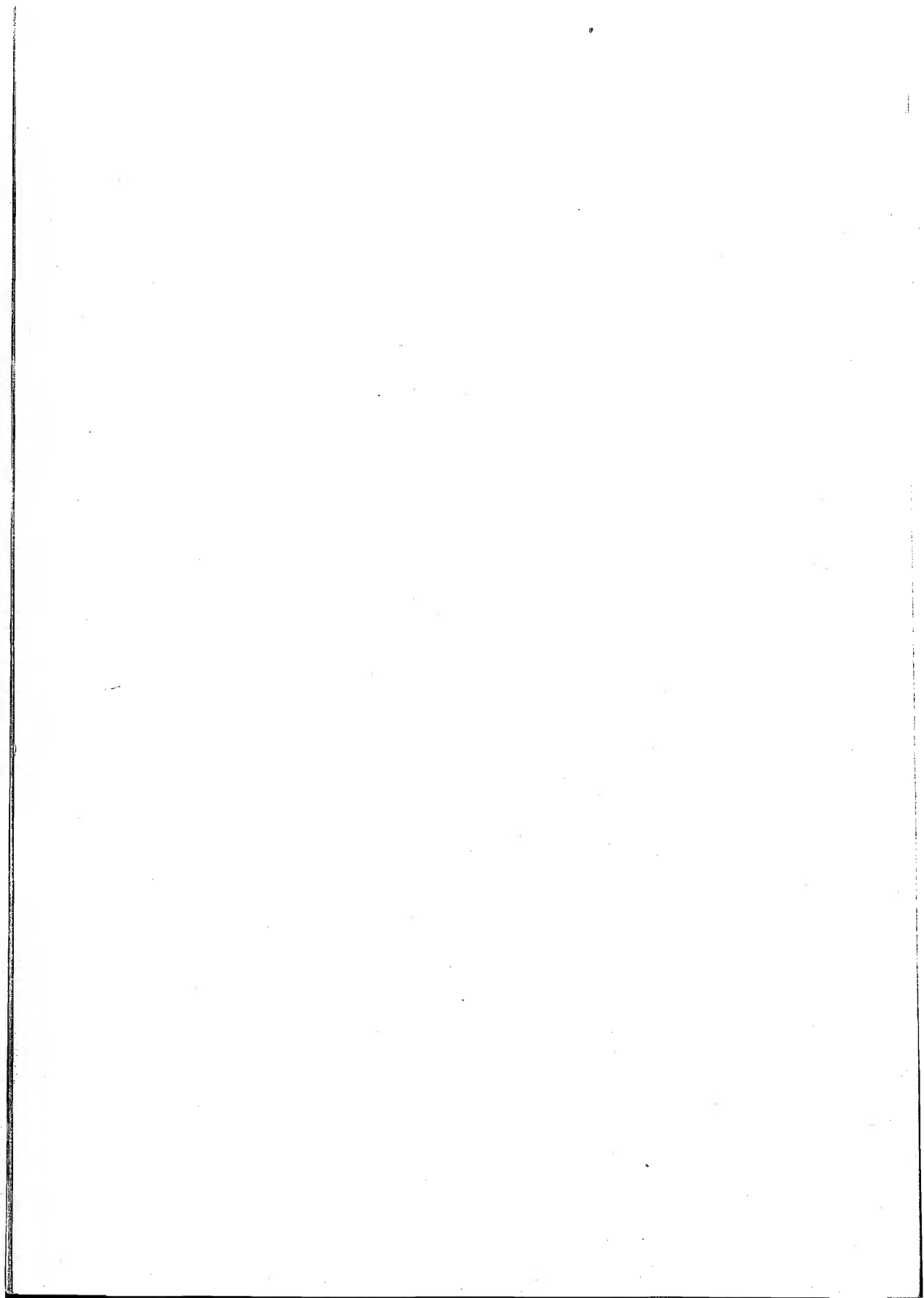
I am fully aware of the difficulties following from this situation. What I had in mind when writing this book was no utopistic idea but the world itself, with its immense possibilities, conflicts, contradictions, failures and uncertainties. I cherish the hope that—after having perused this monograph—the Reader will have the same impression and opinion.

Why have I still tried to approach objectives that seem almost unapproachable in the present state of science and practice followed by human actions?

For a scientist and a man in public life it is difficult to acquiesce in the poor foresight and the amount of suffering at the price of which mankind solves its social, economic and political problems. Day by day we achieve amazing results in science and industry but these epoch-making inventions result but in a further concentration of economic power, in increased differences in the progress of nations, in reduced individual freedom, nay, they sometimes seem to cast the shadow of looming cataclysm on our planet. We are often unable to see the more remote consequences of our own actions and find ourselves facing, bewildered and helpless, the outcome of processes started by ourselves. In this world, unified through a host of interdependences and relying on highly uncertain equilibrium conditions, any action may unleash a diversity of new processes nobody can predict. That is why our knowledge and foresight are unable to keep pace with our own actions.

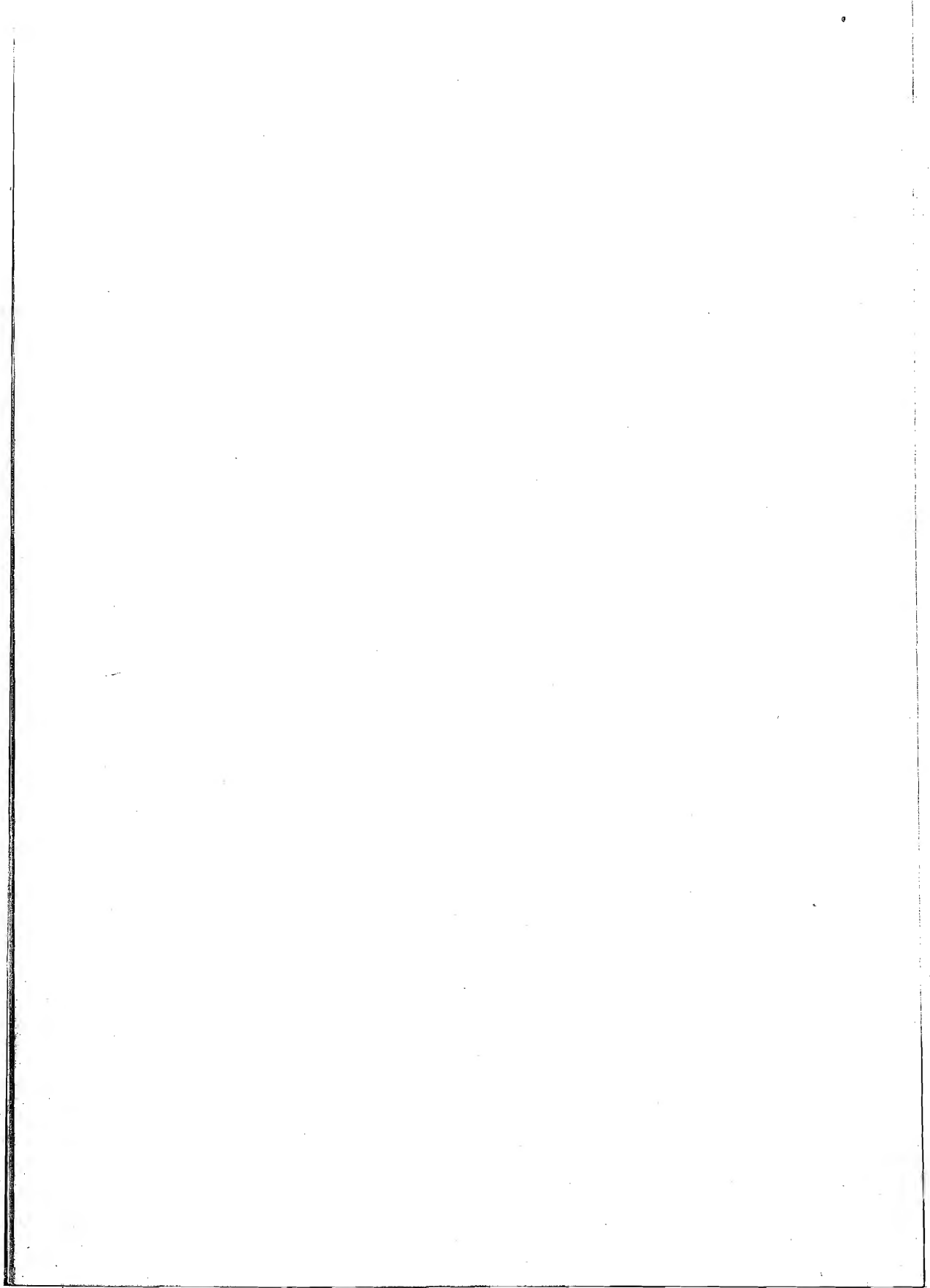
Human science cannot fulfil its mission unless it offers a better foundation for deciding the problems of political and economic development which are vital to the nations fighting for a better future and to all mankind. If we fail to reveal the norms of rational action on an international level, our world will continue its way toward unpredictable and incalculable conflicts.

The cognition of the norms and foundations of rational political and economic actions, of their numerous interdependent elements, as well as the establishment of their coherent system will require intensive research work, countless efforts and great sacrifices both from science and from the planners of political actions. I am fully aware that this monograph is but a very modest contribution to the investigation still to be done. In spite of this, I felt it necessary to publish it since progressive humanism must prefer action against indifference, withdrawal and passivity. And never before has progressive humanism standing for action been more needed than at present and in the coming decades, when the national states still survive, national feelings are still powerful and play even an increasing role in some countries, yet the world has already begun to live in the framework of inseparable political and economic interdependences.



PART ONE

General Concepts



## CHAPTER I

### The Notion and the Criteria of Economic Backwardness

The intricate political, social and economic problems relating to the economic growth of the developing countries have come into the centre of interest of man with a dramatic suddenness. As a consequence, a good deal of conceptual and terminological uncertainties concerning the phenomena of economic backwardness and growth are still prevailing. This confusion of concepts and terminology can be traced back to two basic factors:

a) We are not quite aware of the essence of the problem (to wit, of the economic backwardness and growth), since only the initial steps have been taken in our days to approach it.

b) The problem has cropped up simultaneously in several fields, including various domains of human action and scientific research. The spheres of human activity where the problems of the developing countries appear with the highest intensity and elicit the most severe tensions are those associated with the international and national political power relations. The participants of these spheres of human action are known to assess the political and economic phenomena and processes from the angle of their own interests and objectives. Hence, when qualifying and designating the various phenomena and processes their intention is to influence people much rather than to achieve scientific exactness.

On the other hand, scientific research is not entitled to give final qualifications to phenomena and processes the essence of which, i.e. the character and the relative order of magnitude of the factors affecting them, has not yet been clarified or is known imperfectly. (For the sake of simplicity, let us now disregard the fact that the research workers themselves may hold such views or have such interests as could jeopardize or thwart an exact approximation of the problems and phenomena in question.)

From the discrepancy of attitudes in the spheres of political action and of scientific research it follows that, whereas in the one sphere several different designations are applied to one and the same phenomenon in compliance with the actual political circumstances, in the other sphere it is not yet possible to qualify that same phenomenon in an exact manner.

Owing to the unprecedented communication facilities of our days offered by press, radio, television, the various forms of political agitation etc., political information and notions rapidly spread in the public. Thus, new notions and designations may become popular long before their essential characteristics could have

been cleared up by competent specialists. The gap left open by the latter is then filled with the inexact terminology (influenced by political interests and objectives) adopted in the sphere of politics. The political terminology will, in its turn, influence also the specialists by its existence and wide diffusion. Experts and research workers invariably stress that the technical term in question is inexact, yet for lack of any better they are bound to use it.

This is how it has become almost general to refer to a group of nations as developing or, according to an earlier term, economically underdeveloped countries.

### The Possible Classifications of Countries According to Objective Criteria

The use of this term, irrespective of its disputable correctness (it implies, namely, that the advanced countries are *not* developing any longer), expresses an age-old endeavour of classifying nations according to some criteria. In the second half of the 20th century, however, such classifications are no longer permitted to be so one-sided, as they used to be in the past.

In the antiquity, certain peoples considered themselves civilized and referred to others as barbaric. Later on, some declared themselves to be believers, that is, the exclusive possessors of divine revelation, and abused others as faithless or heretics.

Such designations were, irrespective of their misleading content, entirely arbitrary and one-sided; the Christians referred to the Moslems as unbelievers but the same term was applied by the latter to the Christians.

The widening of international relations and the obvious interdependence of the peoples have made it necessary to classify the states on the basis of more objective criteria. Only such classification entitles us to hope that it will be accepted by everyone or at least by the overwhelming majority.

Ever since the 19th century the classification of states has been governed by the following two main criteria:

a) The character of the social and political system adopted by a nation or group of nations. In this sense, feudalist, capitalist and socialist states are distinguished.

b) The degree of the economic advancement of the nations or states as characterized and collated with the help of various aggregate statistical indicators.

These two criteria most frequently used are somewhat overlapping.

There are capitalist countries which have achieved a very high degree of economic development, clearly shown by the above-mentioned aggregate indicators.

On the other hand, the degree of economic development of the socialist countries as far as it can be characterized by aggregate indicators, strongly depends on the stage of economic evolution attained by them in the period *preceding* their social transformation, and on the length of time elapsed after this transformation. Although the establishment of socialist conditions eliminates the social circumstance hampering economic development (e.g. backward ownership relations) and accelerates economic growth, it can but gradually liquidate such survivals of the

old order as the scarcity of capital, subsistence economy, the primitive character of the infrastructure, backwardness of industry, latent unemployment and losses incurred in the international exchange of goods through the terms of trade. Consequently, the aggregate indicators of a socialist economy in the first postrevolutionary decades may coincide with those of a capitalist country being on the medium or lower level of development.

When speaking of underdeveloped or developing countries, we have, in the first place, certain economic criteria, i.e. aggregate indicators, in mind. The adoption of these criteria does not, however, exclude the use of others for another classification. In my opinion, the socio-political system must be considered as the principal criterion of classification. If, however, the socio-political conditions of some countries cannot be readily characterized by the available criteria or if they are uncertainly defined (in the scientific sense of the word, that is, on account of insufficient information), yet their economic features are characteristic and sharp, then it seems reasonable to characterize such a group of states mainly on the basis of *economic* criteria.

Thus it seems reasonable to accept and use the terminology adopted in the sphere of political actions, diffused and deeply rooted in the public opinion throughout the world. We hope that in the coming decades scientific research will be able to reveal in greater detail the factors associated with economic backwardness and growth, and to approach better the essence of this phenomenon. Such scientific identifications and discoveries will permit to elaborate the "strategy of economic growth" and to liquidate economic backwardness. Accordingly, it is not really worth concentrating much energy on perfecting the available terminology since the rapid course of events will anyhow prevent the technical terms from becoming inflexible. The criteria of economic backwardness are certainly not valid for centuries. They are absolute or relative characteristics of the economic processes of a given historical period, subject to constant changes in the course of development.

When describing the criteria of economic backwardness, we shall often refer to the following aspects:

a) All the criteria enumerated do not apply to every country. The absence of a certain criterion or its deviation from the usual does not involve the necessity of assigning the relevant countries to another category.

b) The absolute and relative order of magnitude of certain criteria (aggregate economic indicators) may widely differ from country to country. Despite such differences it is generally possible to determine an *upper* limit for each of these indicators, below which they mark economic backwardness. In such cases the lower limit of the indicators in question is not relevant. For instance, under a certain level of per capita national income it is not necessary to form subgroups. The upper limits, however, are significant; if a country exceeds them in respect of several indices it may be ranged into the lower category of moderately advanced countries.

c) Also some social and political factors may be included among the criteria of economic backwardness. This logically follows from our endeavour to study every

criterion in its dynamism rather than statically, and to consider every single process not only as the expression of a given stage but also, and mainly, as a signal of potentialities that could serve future development. It is common knowledge that the social and political factors play an essential, or sometimes decisive, role in dynamism, i.e. in the process of economic growth.

The social and political factors do not stop acting when the obstacles of economic growth are eliminated. Every stage of growth has its own requirements of equilibrium. This applies also to the social and political energies contributing to the economic process. Hence, the equilibrium may be upset also by social or political factors, with economic consequences involved. On the other hand, the lack of economic equilibrium may cause serious political and social troubles.

d) It is often said that beside the similarities as characterized by equal magnitudes of the same criteria there are important differences between the developing countries. Later on, some of these differences will be pointed out. I wish to stress, however, that the significance of these differences must not be overestimated; all classification is necessarily based on the common features. Our approach to the subject matter relies essentially on the similar features deliberately selected from among *all existing criteria* of the units examined.

Finally, in determining and selecting the criteria summing up the notion of economic backwardness, the *purpose* of the scientific analysis must also be taken into account. Our purpose is to help the endeavours aimed at a possibly rapid economic growth of the underdeveloped countries. This means, among other things, that the most favourable (optimum) growth type must be correctly selected for each of these countries and, when determining the growth rate, also a purposeful distribution over time of the political, social and economic tensions elicited by the growth process must be thought of.

It follows that we ascribe a particular significance to such features of economic backwardness as would decisively influence, through their primary and multiplied effects, the concrete growth process. Hence, most of the long-term and short-term factors affecting economic growth are included among these criteria.

a) The low level of the per capita national income has to be considered partly as a statical and partly as an "anti-dynamical" factor limiting the possibilities of accumulation.

This phenomenon of great importance both statically and dynamically is the consequence of a deformed economic structure resulting from the international division of labour of a specific historical age. This structure comprises heterogeneous elements not inducing and generating one another's development.

b) A country's dependence on world economy again has a static sense, as a determinant of the actual situation, and a dynamic sense, owing to the extreme sensitiveness to foreign trade of the growth type. The dependence on world economy can be traced back to three decisive circumstances: first, a significant part of the development factors must be imported, second, the growth process renders the developing countries import-sensitive (in addition to most of them having



been, for a long time, also very export-oriented), third, the terms of trade on the world market have shifted to their disadvantage.

c) The lack of qualified manpower, necessary for the functioning and development of economic life, and of adequate scientific capacity as a precondition for long-range economic development.

d) The simultaneous existence of contradictory and disparate social formations in the economy. The obsolete social formations hinder the development of social dynamics necessary for economic growth and prevent the distribution of incomes from being adapted to the development objectives. Nevertheless, the outdated formations are part and parcel of the existing balance of political power. Hence the extreme sensitiveness of the growth process to power relations.

e) The high rate of population growth (annual 2 to 3.5 per cent) due to the radical decrease of mortality and to the invariably high birth rates. The problems arising from the rapid population growth constitute an integral part of the growth process. And this applies not only to the individual national economies but to the world economy as well.

Let us subject to a more detailed analysis these criteria of economic backwardness influencing the growth process and its characteristics.

The per capita national income is considered to be an aggregate indicator, reliably showing the level attained by a country in the supply of goods and services. We speak only of the *production* and not of the *distribution* of the national income for obvious reasons, since the per capita amount of goods and services as expressed in money is but a statistical average, revealing neither the typical (mode) nor the dispersion (upper and lower limits) of per capita values.

### Trends in the per Capita National Income

When collating the per capita national incomes in countries on different levels of economic advancement incomes are invariably higher in the more advanced countries.

In some of the developing countries the national income is produced, at least in part, under economic conditions and at a technical level surviving from the period prior to the industrial revolution.

In other developing countries, especially in Latin America, industrialization has begun, but under the existing social and economic conditions, the industry so far developed is unable to fulfil its function in the historical process of economic growth.

The great significance of industrialization is confirmed by the economic computations undertaken, among others, by S. I. Patel and S. Kuznets.<sup>1</sup> These computa-

<sup>1</sup> The distribution of the world's population shown here derives from our having ranged the socialist countries of Asia among the developing countries in spite of their socio-economic system differing from that of the other developing countries. We are, naturally, well aware of the fact that some of the above-quoted criteria of economic backwardness do not apply to these countries.

tions seem to have affirmed the reports of the travellers who had visited Asia in the early 19th century, saying that about 1850 there was no essential difference between the per capita national incomes of the two groups of countries that, in our days, are considered as industrially advanced or developing, respectively. As revealed by the data and conclusions of these authors, the national income in that period was about \$ 170 in the first group of countries and around \$ 100 in the second.

In contrast, according to our computations relying on authentic sources, in 1962 the per capita national income was \$ 1,044 on the average in the advanced capitalist countries, whereas the same average was \$ 100 for the developing ones.

In 1850, again according to the above-mentioned authors, the countries now considered as developing represented about 74 per cent of the world population and yielded 65 per cent of the world total of national incomes.

According to our computations relating to the 1962 situation, the developing countries comprised 71 per cent of the world's population but they disposed of only 11 per cent of the world's total income.

Some economists when measuring the extent of industrialization restrict themselves to the analysis and weighing of such indicators as the changes in economic structure or in the contribution of the main production branches to the national income. These indicators are evidently relevant since the productivity of manpower is, under normal conditions, i.e. if certain fundamental proportions are maintained, much higher in industry than in agriculture. The effect of industrialization, however, is much more than this; it is a complex, cumulative process decisively influencing the social structure, the position and up-to-dateness of all other branches of the economy, the organization of society, the defence potential of the country, the spread of the "economic" way of public thinking, the composition of the professional layers and the development of scientific research.

It should be pointed out that, from the second half of the 19th century, non-industrialized countries began to experience serious disadvantages also in the field of international power policy since, owing to their weak defence potential, they were unable to defend their independence against the imperialist powers equipped with up-to-date arms and excellent transport facilities.

In part of the developing countries, particularly in Latin America, however, the industrialization was started, and it even gathered a certain momentum in the thirties of the 20th century. Yet, even in such countries owing to the backwardness of their social structure and to other factors, industry fails adequately to discharge its treble basic function.

a) It does not produce surpluses sufficient to ensure a high investment rate.

b) It is unable to induce a greater speed into the other branches of the economy; quite the contrary, its maintenance and functioning require concentrated and disproportional sacrifices on the part of the national economy as a whole.

c) It is unable to create such an atmosphere of social dynamics as would release the "ascending" forces from the depth of the economy for the service of growth.

No doubt, however, that industry—despite its insufficiencies listed above—has a beneficial effect on the increase of employment, raises the organization of the

society, improves the composition of the intellectual layers of population, and objectively promotes the transformation of the outdated ownership relations in agriculture.

The low level of the per capita national income is doubtless a criterion distinguishing the developing countries from the moderately advanced and the highly advanced economies. But "low" and "high" as values hold only with respect to each other, in the course of comparison.

The fact that the per capita national income in the developing countries is lower than in the advanced ones does not mean that there are no differences within the category of the developing countries. On the contrary: the dispersion in this category is larger than with the advanced countries because the lowest per capita incomes are around \$ 40 to 50 whereas the upper limit of the category, coinciding with the lower limit for the moderately advanced countries, is \$ 400 or 500. For instance the national income in the early 60's amounted to \$ 40 in Pakistan, Ethiopia and Upper Volta, to \$ 50 in Somali, Burundi and Rwanda, to \$ 60 in Tchad, Tanganika and Uganda. On the other hand, in the better-off countries of Latin America it even exceeded \$ 500 (e.g. 500 in Argentina, Chile and Uruguay, about 700 in Venezuela).

Accordingly, on the strength of the criterion of the per capita national income, three groups can be distinguished among the developing countries:

- a) below \$ 100
- b) between \$ 100 and 200
- c) between \$ 200 and 500.

These differences acquire added importance when assessing the energies and potential available for economic growth in the various developing countries.

On the other hand, they have no particular importance when examining the distribution of growth energies between the developing and the advanced world since the average per capita income of the developing countries is, as we have seen, not more than \$ 67. It should also be remembered that, in general, the per capita income in countries with a small population exceeds that of the countries having a vast population.

The wide dispersion of the values of the per capita income is due to various factors.

In some countries the economic growth has just started. Hence the inherited social conditions still impede progress, the sphere of subsistence economy is wide, and national economy is, in the true sense of the word, just in the making.

In other countries industrialization began several decades ago. Owing to the national wealth, a large-scale exploitation, prompted by the needs on the world market, of important industrial raw materials (ore, oil) was started (Venezuela, Kuwait, etc.). Yet on account of the outdated (though no longer primitive) social conditions, progress was slow. The national economy itself took shape a long time ago, although some regions of the country and/or certain groups of the population are not adequately inserted into its circulation.

In fact, these differences represent various stages of growth, as can be observed in the developing economy. It does not necessarily follow from this, however, that any country now in the initial (first) stage of economic growth will follow the same course of development as those having already attained the second or the third stage.

It is certain, however, that the rise from the present lowest income level to the upper one can only be achieved in several phases. To show the factual difficulties of this, let me quote a very simple example.

Let us suppose that the per capita national income in a country of 10 million inhabitants is \$ 100. In order to raise this to \$ 200, considering an "incremental capital/output ratio" of, say, 5 : 1 or 4 : 1, the necessary investment would amount to \$ 5,000 or 4,000 million. This is five-fold the present national income. A country in the initial stage of development can accumulate only gradually and by sticking to a strict schedule the energies required to bring about such fundamental changes in the production and accumulation capacities.

The radically differing physico-geographical and population conditions of the various national economies constitute the second factor causing wide dispersion of per capita national incomes. The effect of such conditions is evidently much stronger in the first period of economic growth than in a more advanced stage. An agriculture well provided with capital, properly mechanized and ensuring the necessary soil conservation faces the hardships of climate and weather more easily. A developing economy is usually not supplied with sufficient capital to achieve greater agricultural production by intensification, that is, by increasing hectare yields. Accordingly, production has to be extended, if possible, over virgin soil. Such areas are in relative abundance in Latin America or in Africa but can hardly be found in the most densely populated regions of Asia. In this respect the countries of Latin America and Africa are substantially better off than those in Asia because they can more easily raise their agricultural production and thereby their national income.

In Latin America and in Africa, owing to the low population density, there are various means to achieve an extensive economic growth while in overpopulated Asia growth must necessarily be intensive. In Asia, where also capital is scarce, the labour-intensive type of growth seems to be the most promising.

The very disparate physico-geographical and population conditions of the various continents enhance the wide dispersion of the per capita income. Generally speaking, these conditions are again more favourable in Latin America and in Africa than in Asia. This accounts for the well-known and alarming fact that the per capita national income is either stagnant or is decreasing in most countries of Asia.

The relation of the individual economies to the world economy varies within a very wide range. This, too, contributes to the dispersion of the per capita national income of the various countries.

Before starting growth, the export of the monocultural agricultural products yields a considerable amount of foreign exchange that has no adequate counterpart in imports. Namely, on the domestic market there is no demand for means of

production (apart from the needs of the capitalistically organized plantations) and, owing to the low purchasing power, there is hardly any demand for imported consumer goods either.

After the setting in motion of economic growth, economy becomes sensitive to foreign trade and the equilibrium in the balance of payments is upset. This, in turn, tends to slacken the growth process, and thereby the increase of the national income.

Unfavourable trends in the terms of trade have a continuous restricting effect on national income. Actually the developing countries are known to be in a grave situation in this respect, because the prices of the agricultural products and raw materials for the light industry tend to fall or, when they rise, they will do so to a smaller extent than the prices of the finished goods.

The oil-producing countries, owing to the advantageous world market position of oil, are better off and may also acquire certain export surpluses. Hence, their per capita income is substantially higher than in other developing countries. An adequate utilization of such export surpluses may permit a continuous import of capital goods speed up thereby the increase of the national income.

### Internal and External Resources of Accumulation

A high rate of accumulation is evidently the main precondition of starting economic growth. The possibilities of increasing the accumulation rate in the underdeveloped economies, however, are strictly limited by several factors:

a) The low level of the national income. Obviously, a low national income permits but a low rate of accumulation, i.e. relatively small potential energies can be extracted from the economic cycle in order to re-feed them in the form of development energies.

Experience shows that the economically underdeveloped countries are not able to accumulate more—even during a longer period of time—than some 10 to 12 per cent of their national income.

This rate is much lower than the corresponding figures in the socialist and in the advanced capitalist countries (between 1950 and 1960 20·8 per cent in Italy, 21·3 per cent in Sweden, 24 per cent in the German Federal Republic, 24·8 per cent in Canada and 26·4 per cent in Norway).<sup>2</sup>

The statement and figures concerning the accumulation potential of the developing countries refer exclusively to the *domestic resources* and do not include the foreign credits, i.e. the direct investment of foreign capital.

The growth of an economy, especially within a period of medium length (of about 3 to 7 years), can be optimized on the strength of various considerations regarding the growth rate of the national income, the increase of consumption etc.

<sup>2</sup> A. Maddison: *Economic Growth in the West*. George Allen and Unwin Ltd., London 1964, p. 76.

It would seem logical to optimize the growth of the underdeveloped economies by raising the accumulation potential. This, however, is connected with vast difficulties on account of the very low actual level of consumption and of the rapid growth of the population.

b) The majority or at least a large proportion of the agrarian population live in subsistence economy, that is their economic activity falls outside the circulation of economic life. This part of the population consumes everything it produces, inclusive of the relative surpluses that may eventually occur in certain seasons.

Later, in Chapter 9 on economic policy we shall discuss the problem of how, by what considerations, through what kinds of measures and effects can a population living on subsistence economy be made to participate in an organized system of economic life.

c) The bulk of national income is being produced by such production units (small plants, artisans, etc.) as are incapable of accumulating significant surpluses. In other words, as regards accumulation, the economy is insufficiently *concentrated*; there are no domestic-owned large-scale industrial plants capable of continuous and significant accumulation.

In the feudal and semi-feudal countries the big landowners yield considerable surpluses but they hoard them instead of investing them into the economy. This attitude results in a cumulative restrictive effect upon the economic circulation because the agricultural tenants, paying exorbitant rents to the landlords, are unable to invest in production and, at the same time, the material goods withheld from them are not being reinvested into the economy.

Under such circumstances the role of the state in economic life becomes decisively important for economic growth as a whole. Alone the central power is capable of concentrating the various courses of accumulation, and of gradually transforming the social structure in compliance with the requirements of an increasing accumulation rate.

d) Foreign capital is known to play a significant part in the national production of most developing countries. This is partly the legacy of the past "colonial" period, partly a consequence of neocolonialist expansion. Hence profits accumulate in the hands of foreign capitalists. The overwhelming majority of this profit being transferred, the participation of foreign capital substantially diminishes the part of accumulation available for domestic development objectives. This circumstance should be especially emphasized since most international data reveal only the *influx* of capital but neglect capital outflows.

Between 1950 and 1961 the balance of these opposite capital movements yielded a net capital inflow of \$2,000 million for the aggregate of all developing countries. In the case of Latin America, however, as pointed out by R. Prebisch<sup>3</sup>, the balance was a net capital outflow.

<sup>3</sup> R. Prebisch: *Towards a New Trade Policy for Development*. Report of the Secretary General of the United Nations Conference on Trade and Development. United Nations, New York 1964.

e) Owing to the unfavourable trends in the terms of trade and to the negative effects of certain other factors (e.g. transport costs), the developing countries incur regular "losses of energy" in world trade. The terms of trade between 1950 and 1961 show a 26 per cent deterioration for the developing countries.

f) In the developing countries the creation of new productive capacities or the extension of existing ones is comparatively expensive, on account of the underdeveloped infrastructure. Communal facilities have to be established or enlarged (e.g. water supply in the dry season), roads must be built, sanitary institutions established, housing for workers assured, special training organized etc. Such accessory and complementary investments increase the costs of industrial or agricultural progress. Or else when the accessory and complementary investments are postponed and all or practically all investments serve to expand the fundamental production capacities, then the new industry will work with low productivity and will not be able to fulfil its most important functions.

g) Paradoxically, another obstacle in the way of increasing the rate of accumulation is that the amount of intellectual and material resources which can be invested in a national economy within a given period is by no means arbitrary. For the sake of simplicity let us assume that the commodities and services that can be produced by the new production capacities can be sold without any difficulty. In this case it is expedient to introduce into the national economy as much of technological and economic resources as it can efficiently utilize. The measure of economic efficiency, however, is the ratio of the new value created to the value of resources used in production. When the amount of the new capacities to be created requires more than the energies efficiently utilizable at the given economic level, then the construction time of the investments increase, the number of unfinished investment projects rises, the building industry becomes disorganized, and, as a necessary consequence of these negative phenomena, the costs of implementing the investments substantially increase. In extreme cases, the original calculations may soar up two- or three-fold.

These factors constitute the limitations of accumulation in the underdeveloped countries.

### Passive Dependence on World Economy

The second criterion of economic backwardness, as has been pointed out earlier, is the *dependence on world economy* in the defensive sense of the word and the foreign-trade sensitivity associated with this type of growth.

By qualifying the dependence on world economy as a negative criterion we do not mean to advocate the absolute independence of the national economies or the complete sovereignty as it was understood in the 19th century. On the contrary: we are fully aware of living in a world in which the fate of the nations, groups of states and of continents is inseparable from that of others.

In the second half of the 20th century the so-called total independence could only

be conceived under completely primitive circumstances, i.e. by isolation from the world and by losing contact with the rest of human society.

We shall distinguish, however, reciprocal dependence, i.e. *a system of inter-dependences* from *one-sided dependence of a passive character*. World policy and world economy in our days develop in the spirit of interdependence, which is in conformity with the requirements of our age and with the main trends in development.

The dependence of the economically underdeveloped countries is rather one-sided than reciprocal. It may, however, assume a wide variety of forms.

In the colonial period the type of open political and economic dependence on one single country prevailed, i.e. the conquering country directly controlled the internal political relations and the economic activities of the colony.

Since the achievement of national sovereignty by the former colonies, the open dependence has either ceased or substantially diminished. The new independent states try to establish political and economic relations with all parts of the world, to reduce and restrict the influence of the former colonizing power with the help of other partners. And they have achieved remarkable results in this field.

These results can be ascribed to three different factors:

- a) the deliberate endeavours of the developing countries to consolidate their national independence;
- b) the political and economic competition between the socialist and the capitalist countries and the resulting shift in the international power relations.
- c) the change in the tactics of the advanced capitalist countries, connected partly with this shift of international power relations and partly with such changes in the capitalist world economy as the process of West-European integration, the liberation of capital and manpower flow between various capitalist countries, the co-ordination of their international economic activity and the consolidation of the international monopolies.

Yet the former type of one-sided dependence, obviously, cannot be transformed into a system of reciprocal dependence over a short historical period.

Hence the dependence of the developing countries is more disguised and more complicated in our days than before. (Let us note incidentally that what we investigate are the main trends and tendencies of the changes and of development and therefore we do not dwell on the problem that even now there are some sovereign countries that politically depend on their former colonizer. This should be ascribed partly to the economic weakness of the countries in question, partly to the lack of power of their governments. Viewed from a historical perspective, however, also these countries will obviously liquidate their one-sided dependence sooner or later, but perhaps only after the lapse of several decades.)

Economically, most of the developing countries *seem* to depend on the world market and on the world economy in general, rather than on a single political or economic power. However, the rules governing world economy and world trade have been established by the former colonizers in a way to yield maximum benefit from these areas. And owing to the present economic power relations, the develop-



ing countries must accept, if not in principle but *in practice*, the commercial and financial institutions and methods that help to skim the profits of world trade for the advanced capitalist countries. They are compelled to do so even though they do their best in the international forums to change the present mechanism of world trade. (For proofs substantiating the statements made here, the reader is referred to Chapter 19.)

It logically follows from what has been said that the effects and consequences of the dependence on world economy are introduced into a national economy via foreign trade in the first place. Hence the process of economic growth in the developing countries is extremely sensitive to foreign trade. Depending on their natural and economic endowments and development levels, these countries may have a wide choice of growth types or variants, but all of these are extremely sensitive to foreign trade, although there are essential differences in the extent of this sensitivity.

Foreign-trade sensitivity reflecting dependence on world economy is revealed in three factors which, though not to the same extent, occur in the economy of every developing country, and in a fourth occurring only in some of them.

These factors are as follows:

- a) Owing to the limited possibilities of domestic accumulation, a substantial part of the development factors must be imported.
- b) In the course of the growth process the developing economy becomes import-sensitive, i.e. import will grow for a long time quicker than does the national income.
- c) As a result of the unfavourable trends in the terms of trade, the level of the foreign-currency income can only be maintained by increasing exports and, even an unchanged import volume and composition would involve growing expenditure in terms of export goods.
- d) Certain developing economies (especially those of a monocultural character) are export-oriented, i.e. the overwhelming majority or at least a substantial part of their exports consists of one or two commodities the domestic demand of which is insignificant or nil. Hence the slightest slackening of foreign demand or a slight price fall entails serious consequences for the domestic economy.

Ad a) Since we have already spoken of the limitations of the domestic accumulation, we only want to point out that the attainable rate of internal economic growth is substantially influenced by the trends on the international credit market and by the attitude of the countries that possess most of the gold and foreign-exchange stocks of the world. This constraint asserts itself permanently in connection with any major development project.

Ad b) The import sensitivity of the developing countries is linked up with several circumstances.

To accelerate industrial development it is necessary to import producing equipment. Without this, there is no industrialization and no economic development. In addition, new import needs arise also in connection with organizing government activities. The sphere of goods to be imported by the communal sector ranges from typewriters to motor cars and arms.

In these two respects imports must *necessarily* rise, and in two other respects they *usually* rise. As a result of economic growth and owing to the rapid increase of the population, the domestic market expands and consumption rises. Hence there will be a growing demand for industrial consumer goods and for food. If effective demand grows more rapidly than the production of consumption industries and agriculture, imports will increase. A growth of production proportionate to the rising demand can be achieved more easily in consumption industries than in agriculture. In the latter, assuming a 2.5 per cent population increase and an increasing per capita food demand due to the shift between rural and urban population and taking into account that agricultural exports must be maintained or even increased in order to ensure foreign exchange for the imports of equipments, we find that the agricultural production would have to be instantly increased to an extent hardly conceivable for a country poor in capital.

The growth of food imports, however, jeopardizes the entire growth process since, if there are no changes in the other factors, it will oust the import of producing equipment. In this situation, additional credits will be needed because otherwise economic growth turns into stagnation.

Such an economic situation enhances the economic dependence of the developing countries on the advanced world because, as is well known, major surpluses of agricultural produce, especially of cereals, are available at present only in such leading capitalist countries as the USA, Canada, Australia and France. (Although Argentina possesses excess stocks in cereals, her economic situation does not permit her to deliver them on credit.)

Ad c) We have already spoken of the deterioration of the terms of trade and its consequences. In the past decades the terms of trade have worsened for the countries producing raw materials. This process is due to several factors: to the material-saving effects of technical development, to the replaceability of some natural materials by synthetic ones, and to the shift of profit from raw-material production towards the production and marketing of finished goods. (The last-mentioned process is closely linked with the fact that the greatest economic powers of our days, the monopolies, duopolies and oligopolies, develop in the organizational forms of complex verticality.) As a consequence of the present mechanism of the world trade and owing to the given economic power relations (provided there will be no interference in the spontaneous trends of world trade and economy) the terms of trade will, no doubt, continue to worsen for the developing countries.

Ad d) The economic dependence of the developing countries exporting only one or a few commodities is greater than that of those exporting a comparatively large number of goods. The situation of the former convincingly proves that the economically weaker partner is being handicapped not only as an importer but also as an exporter.

Most monocultural economies, except the oil-producing countries, dispose over goods whose demand on the world market is inelastic. At present the per capita consumption of these inelastic goods (e.g. cocoa, coffee, tea, etc.) increases only in proportion to the growth of the population in the countries where standards of

living are relatively high. On the other hand, the production of these commodities can be increased in almost every developing country. Consequently, the simultaneous rise of production in several countries results in excessive supply, and in the rapid fall of the world market prices, especially of those commodities for the marketing and production of which there are no international conventions.

Ghana, for instance, exported 233,000 tons of cocoa in 1956/57 and earned £G 50.3 million. In 1962/63 the amount of cocoa exported was 423,000 tons but, owing to the oversupply on the world market, the sum earned was not more than £G 67 million.<sup>4</sup>

It should also be taken into account that raw-material production yields very limited profits (assuming a balanced commodity market); the bulk of total profit is being yielded by the processing, transporting, packing and marketing activities.

The prices and the demand trends on the world market are much more favourable for the oil-producing countries, but oil production, processing and marketing are concentrated in the hands of foreign monopolies. The countries of the Middle East have fought a hard battle for acquiring a bigger share from the profits made on oil production. This stubborn fight, with its alternating victories and defeats, has achieved certain results. Obviously, the nationalization of production, so often and rightfully demanded, does not solve in itself the problem because the foreign monopolies dispose of very strong economic positions, control the means of land and sea transport, the processing of the goods (this phase yielding the highest profits) and the consumers' markets.

On assuming the nationalization of the oil wells and on collating the economic positions of the two parties, we come to the conclusion (confirmed several times by practice) that for a monopoly organization well provided with capital and controlling the means of transport, the processing industry and the consumers' markets it is easier to cope with the outfall of part of its raw material resources (e.g. by raising production in another country) than it is for a state-owned enterprise, in a small country to secure transport facilities, to build up processing capacity and to acquire new markets for its oil.

Another thing to be considered is that in an export-oriented economy, the possibilities of increasing investments, budget expenditure, consumption and of maintaining economic equilibrium chiefly depend on exports, that is, on the prevailing situation of the monocultural export commodities. Therefore the government is not able to take such economic and political measures as would bear fruit within 10 to 15 years yet would, until then, endanger economic equilibrium.

Every developing country must, then, account for the factors of economic dependence acting through foreign trade. This means that the rate, efficiency and success of economic growth depend on the balance of trade and payments.

To complete the picture let us present the gravest type of dependence.

This is the case when the above-listed (chiefly economic) criteria of dependence are accompanied by one of non-economic character: the unpopularity, that is, the

<sup>4</sup> *Economic Survey* (of Ghana), 1962, 1963.

lack of a mass political basis of the government. This type of dependence may be referred to as *concentrated dependence* since the existence and the survival of a rootless and weak government chiefly depend on a foreign partner, that is, the original colonizing country or its successor.

### Scarcity in the Long-range Factors of Growth

Among the long-range factors of economic growth, *education, vocational training and scientific capacity* are decisive. Unfortunately, qualified labour and science are even less equally distributed in our world than incomes or production. The unequal distribution of scientific capacity as a precondition of economic growth is one of the main causes of the gulf between the developing and the advanced world and it can only be bridged by deliberate efforts over long decades.

The economic growth of a country lacking sufficient capital must obviously be based on *manpower*. Manpower abounds in the developing countries but there is a serious lack of qualified labour without which even the reserves of unskilled labour cannot be exploited. It is only with the help of qualified manpower that the precondition of any kind of economic growth, i.e. the radical change in the social utilization of labour can be attained.

According to international data, there is a close correlation (0.84) between the per capita national income and the proportion of those attending elementary and secondary schools from the corresponding age groups.<sup>5</sup>

Frederick Harbison and Charles Myers<sup>6</sup> (who will frequently be referred to later) have compared 75 countries on different levels of development by means of an index formed of such factors as the per capita gross national income, the active population engaged in agriculture, the percentage of secondary-school pupils and the weighted percentage of university students. They have revealed a positive correlation (+0.89) between the index showing the advancement of "human resources" and the per capita gross national income, and a negative one (-0.81) between the share of the active agricultural population and the composed index.

Education and training, in addition to improving the efficiency of labour, influence the individual and collective way of thinking in respect of economic questions, widen the horizon of people and work against the prejudices hindering economic development.

Developing countries have to face grave difficulties even in the organization of primary education. The number of teachers and schools is low, drop-out rates are high and, in general, language difficulties occur.

Consequently the problems of primary education can only be solved in proportion with the possibilities created by economic growth. The vicious circle in the

<sup>5</sup> UN Report on the World Social Situation. New York 1961.

<sup>6</sup> F. Harbison and Ch.A. Myers: *Education, Manpower and Economic Growth*. McGraw-Hill Book Co., New York 1964.

field of education consists in that economic growth depends on the qualification of the population, but education can be extended only according to the rate of economic growth.

At present the narrowest bottleneck in the developing countries' education is the secondary level (including specialized vocational schools). Thus the lack in medium-level specialists (technicians, nurses, administrators, etc.) is added to the scarcity of highly qualified professionals. This situation is aggravated by the fact that, in spite of the rapid increase (in Africa, by about 25 per cent) of the registrations at school, primary education covers only a small per cent of the children of schooling age. This rate in 1961 was about 3 per cent in Africa (scheduled to reach the 23 per cent mark by 1981) and about 20 per cent in such countries as India, the United Arab Republic and some countries in Latin America.

There are serious difficulties also in higher education since no proper selection can be made among the applicants. There are relatively few students in the national universities which are in the making, and university studies abroad seldom qualify for the particular tasks arising at home. The domestic staff of teachers is insufficient. The distribution of the university students among the various disciplines is not in proportion with the need for qualified personnel.

There are particularly great shortcomings in the field of scientific research, one of the driving forces of modern economic development.

According to reliable international estimates<sup>7</sup> only 5 per cent of the scientific capacity relevant for the development of economic life can be found in the developing countries whereas 95 per cent is concentrated in thirty advanced countries.

The low capacity in the field of sciences useful for economic development is the result of several interconnected factors:

- a) Obsolete views regarding sciences, based on religious or traditional philosophical views;
- b) The underdeveloped state of economic life which had neither demanded qualified labour nor contributed to formulating problems and providing material means for scientific research;
- c) The endeavour of the colonizing powers to secure and maintain "intellectual monopolies".

Today, economic growth reveals immense problems and creates growing requirements for highly qualified manpower, especially for scientific research workers.

In connection with the scientific side of the problem of economic growth we wish to point out that a rapid development may require the investigation and solution of many new problems which are altogether unsolved up to now or whose solutions so far suggested have only a relative value, that is, their validity is restricted to a determined place, climate, time or situation.

Some of the scientific achievements in our days become economically effective only in the long run, other within a medium period. Yet the time required for a concrete scientific achievement to be made economically effective has substan-

<sup>7</sup> UNESCO.

tially shortened recently. In other words: the economic efficiency of scientific research has become directly tangible.

True enough, an immediate connection between the order of magnitude of the intellectual and material energies devoted to the development of science and the scientific achievements or discoveries cannot always be easily detected.

It is obvious that no scientific discovery is possible without a purposeful concentration of material and intellectual forces. All material and intellectual efforts naturally involve risks since research sometimes fails to attain the desirable objectives, or the utilization of the results achieved is sometimes beyond the economic strength of the country in question. But it is indispensable to incur certain calculated risks since the failure of developing science may turn much more "risky" than would be a purposeful spending on it.

The present scientific conditions in the developing countries do not reveal the difficulties they will have to cope with during the decades to come. These difficulties could be summed up as follows:

a) Owing to the low national income and to the underdeveloped economy, in particular to the lack of industry, *relatively* less can be allocated to scientific research than in the industrially advanced countries.

A comparison of the international data shows that with economic advancement, a growing part of the national income is allocated to scientific research.

b) The growth of the developing countries is substantially affected by long-range problems requiring a considerable time of scientific research and the concentration of vast material and intellectual energies over a long period, possibly decades. Also the practical utilization of scientific achievements may cost several decades. If the investigation of such problems must be financed from domestic resources, this task devolves entirely on the state budget. Now, the financing of scientific research by the state is, by the nature of things, accompanied by temporal uncertainties and jerks.

c) The all-round development of scientific research and organization, including all-round basic research, goes far beyond the capacities of the small countries for financing research and for utilizing its results. When, on the other hand, priorities are established for certain directions of research, disproportionalities tend to appear between the amount of research required by practical economic development and what would be required for the proportionate development of the body of basic knowledge and the gradual progress of education.

d) The "productivity" of scientific research is low, because of the parallel work performed by many scientists, and also the training of new scientific workers is difficult.

Scientific research is a productive factor speeding up economic growth in every country. But its productivity and economic efficiency are highest when it can depend on advanced economic activity, i.e. is supplied with problems to be solved and resources to rely on, and when its achievements are likely to be utilized in actual production. Obviously, the factors enhancing scientific progress and its concrete utilization are not strong enough in an underdeveloped economy.

Nevertheless, it is imperative to establish a basis for scientific research, that is, to concentrate forces on an endeavour without which there can be no progress. This concentration of forces, however, will yield economically only in a long period of time.

### Outdated Social Formations as Factors Hampering Economic Growth

Outdated socio-economic formation may hinder, and sometimes obstruct, the development of social dynamics required for a rapid economic growth. The mobility and elasticity of society asserting itself in economic actions play an important role in every type of economic growth. By social mobility we understand the readiness of society to recognize, accept and perform the new processes induced by advancement.

On the mobility of the society depend the objectives to be set for economic development, and the economic measures by which the government endeavours to shape the attitudes of the various social layers.

In general it may be said that a mobile society will react even to slight changes of economic policy, and that the economic decisions of the government will elicit from the different population layers such attitudes as conform to their veritable interests, i.e. that these reactions can be calculated or even planned in advance. For instance, in any advanced economy we may assume that by raising the price of some agricultural product (in other words: by shifting the inner profitability relations of agriculture) we can induce producers to increase the output of the product in question. This assumption is usually justified if the objective conditions for increased production (seeds, fertilizers, etc.) exist and if the rise of prices is well timed. This, however, relies on the hypothesis, confirmed by practice, that the producers or producing collectives are willing to perform more work in anticipation of higher income, that they are willing to incur reasonable risks and that they are free to change their crop structure. This, however, means that, economic measures may produce effects only on a *limited scale*, under determined conditions; and that the effects thus obtained will produce in the future another set of effects only when certain conditions prevail. (Von Neumann has often stressed that "those outside of science are frequently ignorant of how limited the scale of validity of the theories are in general.")<sup>8</sup>

If, contrary to our previous hypothesis, we have to do with producers whose income, within a given system of ownership relations, is entirely independent of the amount of work performed or who are not free to take decisions regarding the crop pattern, then the price rise will not have the desired effect. In other words: the same measure of economic policy establishing a certain material incentive may

<sup>8</sup> J. Von Neumann: *Válogatott előadások és tanulmányok* (Selected Lectures and Essays). Közgazdasági és Jogi Kiadó, Budapest 1965, p. 77.

adequately influence an advanced economy while it is not suitable to exert a positive effect on producers living in outdated social and economic conditions.

A disastrous or even fatal situation may come about when development starts in some sector of the national economy (most frequently in industry) whereas small or no progress is made in some of the other sectors (generally in agriculture). Agriculture as a productive sector would then be unable to satisfy the aggregate demand increased on account of industrial development. On the other hand, the agricultural population will afford a poor market for the increasing amount of industrial articles. In other words: an out-of-date agriculture hinders, and may even become an obstacle to, industrial progress.

Owing to the simultaneous existence of modern and outdated socio-economic formations, striking differences may occur between the various regions of the same country because the centres of industry, trade, transport and settlement develop at a comparatively rapid pace while a depressing backwardness can be observed in agricultural regions.

According to some economists, including W.W. Rostow, the central problem of development is not the gulf between rich and poor countries but the gap between the rich and poor regions of the developing countries. We do not want to enter into a lengthy controversy on this view but wish to stress that this statement may be approximately valid only for such countries where per capita national income exceeds \$ 300. And even in this case the effect of foreign capital and of the conditions created by it in the domestic economy would require further consideration.

There is a wide variety of types of outdated socio-economic formations in the developing countries. These types play very different roles also in shaping political and economic development as a whole.

We cannot analyse here all the problems related to the existence and nature of these out-of-date formations or to describe them in detail. It should, however, be noted that the following three formations are the most significant in agriculture:

(a) The traditional economy, which may mean family subsistence economy based on common tribal ownership of land, nomadic economy based on animal stock in tribal or family ownership, or the common economy of peasant community mostly burdened with feudal exploitation.

(b) System of large estates cultivated by small tenants.

(c) System of large estates exploited by the owner or one single tenant.

Formation (a) obviously represents social and economic conditions comprising very large masses of people. But without mobilizing these no kind of economic growth can be conceived. Hence the existing socio-economic formations cannot be altered by one-sided force.

On the other hand, Formations (b) and (c) represent social and economic conditions under which a very small part of the population enjoys privileges to the detriment of the large majority, thus hampering general progress. The conditions of this type can be changed rapidly, provided that the political power relations are favourable.



The different types of outdated socio-economic formations occur, in certain cases, within one and the same country.

In the following we shall survey the problems associated with the existence of outdated socio-economic formations, according to their different types and their different effects upon the political and economic relations.

The tribal ownership of land and its collective cultivation (in the following we shall refer to these as *primitive* production relations or formations) constitute a mode of production colonialism was unable to break up. In many countries the majority of the population still live in such primitive formations.

### The Anticipated Behaviour of the Masses Living in a Traditional Economy during Development

The population living in primitive formations resisted passively the endeavours of the colonizers by clinging to their traditional way of living. Later on they took an active part in the anticolonialist fight led by the best of the nation. The national unity created in the period of anticolonialist struggles has, obviously, to be maintained after the achievement of independence. Therefore in many a developing country the millions living in primitive formations have greatly contributed to the maintenance of the political power balance. Certain layers may have been supplanted in the course of socio-economic development and ousted from the present national unity but they cannot form the fundamental masses of the nation. Neither national nor democratic development can be conceived at variance with the majority of the nation. It follows that the primitive formations can be changed and transformed only in a way ensuring the survival of the millions living in them and their progress on the road to national-democratic development.

The fulfilment of this requirement demands much tolerance, circumspection and moderate actions from the government. The anticolonialist feelings of this layer have stood the test of history (including the history of the recent past). Yet after the achievement of independence new problems arose while the dangers of neo-colonialism did not abate. The economic, political and cultural penetration capacity of the industrially advanced capitalist countries is still very powerful.

The population living in primitive formations, however, is not directly aware of this because in a certain sense they are not affected by the manifestations of economic and cultural life. Moreover, we should not forget that the tested anticolonialism of this stratum was fed not on national but on tribal feelings. After the birth of a new state, however, a conflict arises between national and tribal patriotism because the central power must be consolidated, the material means concentrated and the government must stand up against the particularist ambitions of the local organs. The various regions of a new state are often divided by religious conflicts in addition to tribal ones.

Amidst so many new conflicts the launching of economic growth evokes a feeling of uncertainty among the people living in primitive formations whose virtues lie with their stubborn attachment to the condition inherited, to "the natural order of the world" and not with a rapid adaptation to the new conditions.

The new state, i.e. its democratic forces are in real danger of coming up against a considerable part, possibly the majority of the people living in primitive formations. These, in turn, are in danger of becoming the opponents of the national-democratic system, after having valiantly fought against colonialism in the past. If possible, such conflicts must be prevented because their complete evolvment would shake the political system in its foundation.

If internal conflicts assume large proportions, the government must reckon with the following factors:

a) The neocolonialist forces will—by using indirect methods—by all means interfere in the internal conflict. If they can achieve this with the support of internal allies, the population living in primitive formations will not realize the danger since the ruling system frequently offends their tribal and religious feelings, endangers their economic existence while the forces fighting against the government promise the protection of the "sacred traditions". If the internal conflict appears in this form in the minds of the population living in primitive formations, their attitude can hardly be changed by anticolonialist slogans.

b) The cohesive forces keeping the state and the nation together are weak for obvious reasons. Hence the conflicts arising in the form of tribal, religious or language feuds shake the foundations of the state and may easily lead to its decomposition.

c) The new states cannot look back upon democratic public traditions, nor are their democratic institutions rooted deep in the national consciousness. Therefore the fall of the government (of the regime) may jeopardize the whole system, that is, the national democratic development based on the unity of the anticolonialist forces. It may happen that the original prior-to-conflict political balance can only be restored within several years, after grave rightist, reactionary excesses.

The government should shape its policy with due regard to these serious dangers and must not equate the way of thinking of the government officials with the vast political public opinion. In order to be better informed of the opinions and feelings of the large masses, political consultative bodies should be set up in which the participants can voice their opinion and fears freely, frankly and with responsibility.

The existence of these serious dangers, however, must not prompt inferences as though the people living in primitive formations should be treated like people in some kind of reserve. Obviously, when starting social and economic development, the majority of the population cannot be kept in reserves; i.e. they cannot be spared from the effects necessarily concomitant to the change. The government is "free" to decide (including all the relative aspects of this freedom and the consequences of a contrary decision) either to set the economic growth in motion or to give up this plan. Yet, once the growth process is started, all of its favourable and unfavourable, foreseeable and unforeseeable consequences will inevitably appear.

As a consequence of this, the world surrounding the primitive social formations will also change, and this will compel the members of these communities to reach many a new decision and to adopt new attitudes.

Therefore the stream of political and economic development must not be steered clear from the primitive formations or, more precisely: no such attempts should be made. On the contrary, measures should be taken to put them in touch with the carefully planned sequence of the changes.

At the outset this will obviously slow down the pace of development but will create more stable foundations for the political and economic relations. Later (after ten to fifteen years) this will tend to speed up economic growth because the economic initiatives of the state will be supported by the spontaneous national activity of a dynamically evolving society.

In the course of activating the communities living in primitive formations it is important to act with great circumspection.

Economic growth and the building up of the new state power involve the establishment of new institutions also in the village. It must be ensured that the traditionally operating institutions of the primitive order do not come into conflict with the new institutions. It is expedient to co-ordinate the functions of the old institutions with those of the new ones. This will enhance the authority of the new institutions, and the attachment to the old ones will not become "illegal" or secret activity.

There are various modes in which the operation of the old and the new institutions can be co-ordinated; for instance the representative of the state (the local exponent of the central state power) can be the same person as the head of the clan or of a minor community. If this is not possible or, for some reason not expedient, the two leaders should solve the arising problems jointly, preventing the "dual power" from leading to frictions.

It must not be forgotten that the traditional society has evolved its inner life on the basis of the inherited system of values. This "natural order" of things was, in fact, tyrannic since it was meant to oppress individual rights. In relation to the central power, however, the traditional community was "free", since that power did not interfere with the internal order of life or else endeavoured to influence it only through magic and religion. Thus even a progressive state intervention may seem tyrannic to the members of the traditional community because external influence coming from the central power endangers the order of life hallowed by the ancestors and traditions.

Great tolerance is needed also in matters connected with the religious mentality. What we have in mind is not the problem of believers and non-believers, because the position taken by the individual in this matter is a question of freedom of conscience for both simple people and leaders. But the creation and evolution of every religion has been affected and is affected by the social and economic environment surrounding the believers. The attitudes of the various religions and churches toward life, human actions, rules and ceremonies have been determined by the surrounding social institutions, the economic organization, the customs of the population.

In the course of further development the attitudes, rules and ceremonies—deprived of their social background—tend to become rigid and are being handed down from generation to generation in the form of traditions. That explains why some religions prescribe human attitudes and rules at variance with the new order and operation of economic life (e.g. the extremely long and rigorous fasts, ascetism, surrender of worldly amenities, etc.). But these prescriptions, rules and ceremonies do not affect the essence of religion, consequently their modification depends on decisions of the competent religious authorities. (Many historical proofs could be quoted to substantiate this statement, but this would lead us far away from our main problem of economic growth.)

It seems proper for a government to create cordial relations with the churches so as not to exclude the possibility of modifying in due course the rules, ceremonies and attitudes inconsistent with the requirements and processes of economic growth.

Thus the millions of people living in primitive social formations may play a positive role in the political development of the country because their co-operation places the social equilibrium on sounder foundations. Their role will, naturally, not be free from contradictions (which sometimes might aggravate), because their decisions governed by their attitudes reflect the considerations of peoples thinking in terms of traditions. They will, however, more and more frequently face problems raised by life and society in a state of transformation, problems to which they will find a positive attitude first governed by motives of confidence, later on the basis of a more rational assessment.

The co-operation of the millions living in primitive formations is required not only by the maintenance of the political power balance but also by economic growth in the stricter sense of the word.

We have already pointed out that industrialization presupposes an expanding domestic market and an increasing agricultural production. If 80 to 90 per cent of the population is active in agriculture, then the agricultural population represents the chief market for industrial articles, including simple equipments for agricultural production. On the other hand, the rapid growth of the population, the rise in the rate of the urban population, as well as the maintenance of the foreign-trade balance require the rapid expansion of agricultural production.

In addition to this, it should be taken into account that there is an excess of manpower in agriculture. (This question will be discussed in greater detail in Part Two.)

Most of the developing countries lack in capital and abound in manpower. Under such circumstances they obviously cannot develop economy in a capital-intensive manner. In a labour-intensive development, however, the primitive formations may have a significant role because the overwhelming majority of the redundant manpower is concentrated in them.

Modern industrial plants are, naturally, indispensable because it is modern industry that introduces and fashions the up-to-date technical mentality of society. But up-to-date, that is capital-intensive and labour-saving industry can absorb

only a small part of the total labour supply. Another thing to be considered is that, in order to reduce the growing import demand, import-replacing industries must be developed. Import can be saved in the first place by organizing the home production of consumer goods, because the contemporary means of production must be imported as a precondition of economic growth and of technical development. The home production of consumer goods, in particular textiles and household goods, can theoretically be based on either big industry or local peasant industry.

The use of the peasant industry producing commodities on a small scale to supply the population with consumer goods is also accompanied by several advantages and by significant drawbacks. Its advantages can be summed up as follows:

- a) it does not withhold the scarce capital goods from agriculture and from other industrial branches;
- b) it absorbs a significant part of the redundant manpower of the population living in primitive formations;
- c) the population living in primitive formations are drawn into the orbit of commodity production in a new way;
- d) the participation in production of a major portion of the redundant labour accelerates the rise of the national income.

The drawback is that the accumulation capacity of the economy and in particular of the state does not increase at a necessary rate.

At this juncture we do not wish to dwell on this problem because the selection of the proper type of growth (industrialization) is a function of many factors which will be discussed later. Here we only want to mention that the millions living in primitive social formations may play a very significant role with respect to the totality of the economic growth by solving important questions relevant for the equilibrium of a national economy in the making.

The growth process should be outlined and planned so as to permit the masses living in primitive formations to perform their part in economic development and in the gradual transformation of their own inherited living conditions.

### Large Estates, Land Rent and Land Reform

The large estates cultivated by small tenants represent another outdated social formation. Its maintenance would serve the interests of a narrow layer which is opposed to the interests of the *nation* and the working masses. In the period of anticolonialist struggle some landowners may have joined the ranks of the progressive forces, but the political influence of the big landowners as a class is outspoken reactionary and especially in states of weak cohesion, governments have difficulties to defy it. On the other hand, the existence and activities of this class have no positive effect whatsoever on the process of economic growth; on the contrary, they play an entirely negative and undoubtedly harmful role. Let me adduce a few proofs to substantiate this statement which may seem rather categorical to many people.

a) The existence of the land tenancy system is an obstacle to the advancement of agricultural production since, owing to the high land rents, the producer is unable to invest and to raise production.

b) The big landowner withdraws the accumulation embodied in the rents from agricultural production. In most cases he withdraws it from economic circulation by hoarding it, according to the customs of the preindustrial age. The amount of inactively hoarded treasure is significant in certain countries; in India, for instance, according to apparently reliable estimates, it equals half of all investments under India's 3rd five-year plan.<sup>9</sup>

c) It is quite clear that, as a result of the factors mentioned above, the agricultural production will be stagnant, and the rapid population increase will require a constantly growing amount of imported agricultural products.

The governments of several countries try to alleviate the burden of the tenants by forcibly reducing the rents. Under the given economic circumstances this endeavour—obviously well intentioned—yields no concrete results, because:

a) In densely populated countries the tenant is entirely at the mercy of the proprietor. There is little land and there are many candidates wishing to lease land. Owing to the conditions of supply and demand (and they are changing for the worse from year to year for the tenants), the tenant is compelled to overpay the rent "illegally".

b) It is common knowledge that no written contracts are signed in most countries, because this would be contrary to traditions. Hence it is impossible to control the fulfilment of the obligations.

It is no help either if the state substantially raises the taxes on landed property because all tax increase is immediately shifted on to the tenant.

It follows that agricultural production can be stepped up only through a radical *land reform*. If the existing political power relations make it necessary to pay an indemnity, this must be paid or at least credited by the state. It seems justified to pay the indemnities in industrial shares, and thus inducing the landowners to conserve their surpluses in an up-to-date form, i.e. to invest.

The system of large estates combined with extensive plantation farming and in most cases with feudal exploitation is one of the chief obstacles to a consolidated economic growth. The existence of large estates is not only an economic factor but also a political-social one. The material and intellectual influence of the landowners bears on the government, the political parties, the army and the churches alike. Therefore a land reform is hardly conceivable under the existing power conditions.

Large estates play a particularly significant role in the countries of Latin America. According to reliable statistics and computations, 75 per cent of the cultivated area is in the hands of 2 per cent of the population in Venezuela, and the situation in Peru is even more striking. In Latin America, as a whole, 1·3 per

<sup>9</sup> I. Sachs: *Pattern of Public Sector in Underdeveloped Economies*. India, 1964. (A Reference Annual, Ministry of Information and Broadcasting.)

cent of the landowners are in possession of 71.6 per cent of the cultivated areas. Let us add that in many countries of Latin America only a very small portion of the land is used at present for agricultural purposes (3.2 per cent in Venezuela, 2.3 per cent in Brazil, etc.). On the other hand, in Chile where 1 per cent of the population owned 43 per cent of the land, a land reform has recently been undertaken.<sup>10</sup>

The existence of the system of large estates had and is having the following untoward consequences for economic growth:

a) Agricultural production has been stagnant for several years and has even fallen in many countries. The stagnation of production can be traced back to the extensive mode of farming, to deficient soil conservation and to the influx of the rural population to towns. (At present 25 per cent of the population of Latin America live in ten big cities.)

b) Owing to the high rate of population increase (annual 3 per cent) and to the rise in consumption among the well-to-do, the agricultural exports of Latin America have substantially decreased, whereas its imports are rapidly growing. According to calculations performed by Latin-American economists (Prebisch, Herrera, Santamaria and Mayobre),<sup>11</sup> the export-import balance of the agricultural products for Latin America as a whole shows a negative balance of \$ 600 million. The largest state in Latin America, Brazil, for instance, imports some 80 per cent of her cereal consumption.

c) No efforts are made to liquidate monoculture and the one-sided production structure, although an agricultural diversification would have a fundamental significance. It is clear, then, that the advancement and growth rate of the economy in Latin America depend on the increase of agricultural production. Yet agricultural dynamics can be achieved only by a radical land reform. The economic conditions of production ensuing after the implementation of the land reform would promote the diversification of agriculture (i.e. the liquidation of monoculture) the development of labour-intensive production branches and a sound inclusion of agriculture into the stream of economic growth.

Agriculture regenerating in its production relations could create a greater and more evenly distributed purchasing power, a growing market for industrial production. Thus expanding agriculture could give a new impetus to industrial development.

On the other hand, there is no doubt that the land reform raises the consumption of the peasants more rapidly than it raises their commodity production. Hence the exports may decrease with the simultaneous increase in domestic consumption. That is why the land reform must be implemented with utmost circumspection, chiefly in respect of the export cultures. In certain countries of Latin America, on the other hand, there is an abundance of land, i.e. the land reform can be achieved also by occupying free land, but in such cases the remaining latifundia will have to adopt capital-intensive (labour-saving) methods of cultivation.

<sup>10</sup> *Korunk világgazdasága* (World Economy in Our Age), Vol. III. Közgazdasági és Jogi Könyvkiadó, Budapest 1966, pp. 548-549.

<sup>11</sup> *Aussenpolitik*, October 1965.

## Demographic Revolution in the Developing World

Finally, the high rate of population increase is characteristic of all developing countries; it varies from 1.9-2 per cent to 3.5-3.6 per cent.

The demographic revolution will bring about enormous changes by the end of our millenium in the distribution of the population over the various countries and continents. According to reliable preliminary estimates, the population of Latin America will grow 3.6-fold by the year 2000, that of Africa and Eastern Asia three-fold, that of South-Eastern Asia 2.3-fold while the population of Eurcpe, discounting the Soviet Union, will increase only by 33 per cent.

There are vast shifts in the density of population to the square kilometre if we compare the developing countries with the rest of the world:

Density of population per square kilometre	1950	1960	1980	2000
Advanced countries	15	17	22	28
Developing countries	22	27	39	62

The high growth rate of the population is not an unknown phenomenon in economic history; similar symptoms could be observed in 19th-century England.

The demographic revolution in the developing countries, however, essentially differs from the symptoms of England after the industrial revolution as far as origin (the character of the factors responsible for the phenomenon), rate and dimensions are concerned.

The decrease of the mortality rate in England was due to the process of the economic growth and therefore it advanced gradually.

In the developing countries the mortality rate decreased independently or almost independently of the development level of the domestic economy, under the effect of sanitary measures. Their organization, the acquisition of medicines etc. were greatly promoted by international agencies. Let us mention only a few examples like the partial extirpation of the malaria mosquito, the introduction of the vaccinations protecting against mass epidemics, the establishment of the public health network etc. Consequently, the mortality rates decreased suddenly, almost overnight, and not as a consequence of a slow process lasting several decades.

Mortality rate may change in two major fields: in infancy and childhood on the one hand, and in old age, on the other.

Within a short-range period a fall in mortality in both groups decreases the general birth rate because it increases the layers unsuited for reproduction. (It is, therefore, more correct to relate the number of births to that of the persons of reproductive age than to that of the entire population.)

But as soon as the "infants and children saved" attain the reproductive age, the number of births and also their share in the population display a sudden and considerable increase.



In the developing countries it is infant and child mortality that has decreased in the first place, and therefore a population growth wave may be expected within the coming ten to fifteen years.

In 19th-century England, the fall in the mortality rate was followed within thirty years by the decrease of the birth rate, owing partly to the increase of life expectancy, i.e. of the share of the old population, and partly to the changes in the social attitude to the family. The appearance and impact of both balancing factors are inseparable from economic development and from the rise in the standard of living.

On the other hand, the decrease of the mortality rate—chiefly of infants and children—in the developing countries is not due to the economic growth gradually increasing the quantity of goods and improving step by step the social institutions. It is the result of “artificial” interference. Still, as shown by experience in India, when the improvement in welfare is small the number of births may rise instead of falling. In fact, many of the poor could formerly not even afford marriage. It should also be taken into account that the fall in the birth rate follows the increase of mortality rate only after a long period of time even under favourable economic conditions.

In such circumstances it is rather doubtful that the birth and mortality rates will attain or approximate—within 30 to 40 years—those in the advanced countries. This is not the case of a coherent social process, of the effect of economic growth upon two interconnected phenomena; these are affected and moulded by different factors.

To find a correct answer to this question, it is important to analyse the processes that are going to influence the two interconnected phenomena of birth and mortality in the future. Let us presume, as a hypothesis, that the process of economic growth is launched and, despite obvious difficulties and regressions, it advances according to schedule. In this case the birth rate must gradually decrease if the productivity (customs) of the urban population essentially differs from that of the rural masses. The village is abandoned mostly by the younger generations whose productivity is highest. If, however, the urban customs (matrimony, the character of the family, etc.) do not differ essentially from the rural ones, then only the distribution of the population will change (the rate of growth of the urban population will be higher than otherwise expected) and the birth rates will remain the same. The changes then depend on the urban population because its way of living, customs and mentality can be better influenced than those of the communities living in primitive formations. What is more, in the primitive communities the child represents an asset rather than a disadvantage since the cost of education, clothing, etc. are negligible whereas children are economically useful from an early age: they help educate the little ones, perform work at home, earn money and give their earning to the family etc.

The economists of the advanced countries often make the mistake of regarding people living in primitive formations as acting irrationally, instinctively and exclusively in the spirit of petrified traditions. This is a fundamental mistake because

those people also act rationally, only the content of rationality is different in their circumstances. For a family living in a primitive community the child only becomes a burden, when the costs of education set off the economic advantages to be expected from a child but not under the threat of a world or national economic crisis.

It is clear then that the decrease of the birth rate, in the case of a relatively rapid economic growth, depends on several factors:

a) The transformation of the customs of the urban population. This, theoretically, can be achieved sooner since the urban population of even the economically underdeveloped countries is more elastic than the rest. The introduction of compulsory schooling, for instance, plays a very important role in the transformation of the customs.

b) The transformation of rural life whose rate depends on how the population living in primitive formations can be induced to participate in the economic growth.

Birth control can be achieved on the basis of voluntary decisions. It must by no means be introduced before the start of the economic growth because, in this case, it would not only offend the mentality and the feelings of the people but also interfere with their economic interests, particularly in the rural communities. It would be proper to argue that these are unjustified and harmful economic interests since they mean the exploitation of the child and endanger the foundations of future development; youth is destroyed in the struggle for daily food. All this is undoubtedly true, but historical experience shows that an interference in the life of a society in the spirit of new principles and conceptions at one point or two cannot be successful without being able to change the decisive factors shaping social reality.

The decisive change is still the launching of economic growth because this induces new situations and interests in the routine of economic life which, in turn, changes human attitudes, too.

Economic growth, however, will affect also the mortality rate. It gives sounder foundations to the results achieved by the introduction of sanitary measures, on the one hand, and expands and multiplies them, on the other. The improvement of nourishment, the increase of protein consumption, the enhancement of general culture substantially raise life expectancy.

The problems connected with the decrease of the mortality rates clearly demonstrate the essential differences existing in the demographic development of the advanced and the developing countries.

The infant and child mortality in the advanced countries fell almost to the minimum several decades ago, whence its further decrease is hardly possible. Thus the decrease of mortality means almost exclusively the lengthening of the probable life span i.e. the growth of the share of those in the non-reproductive age. On the other hand, in the developing countries it is still possible to decrease child mortality considerably whereas there are only limited possibilities for lengthening the life span. Hence the share of those in the reproductive age will show a strong rise in the years to come.

On combining expectable trends in the two interconnected processes (birth rate and mortality rate) accompanied by opposite consequences we come to the conclusion that the high rate of population increase is a long-range phenomenon. The longer duration of the phenomenon (longer than in the advanced countries) is accounted for by the fact that the decrease of the mortality rate is not the result of economic growth, and that the economic conditions eliciting the decrease of the birth rate have not yet come into existence. After the vigorous start of the economic growth, birth control is conceivable among the urban population. But results may only be expected if in the wake of industrialization the standard of living rises, compulsory schooling is introduced and education achieves higher standards.

The population explosion, naturally, causes serious difficulties in the course of economic growth. A rise of 2.3 to 3.5 per cent of the national income does not yet permit the income to increase, what is more, it makes the per capita consumption decrease.

A minimum annual rise of 5 to 6 per cent in the national income is necessary for the economy to advance and for consumption to increase, and only moderately at that. Basing the calculations on a 1 : 4 incremental capital/output ratio, 20 to 25 per cent of the national income would have to be invested for this purpose, a figure almost unattainable in an underdeveloped economy relying on domestic resources only.

Owing to the rapid increase of the population, unskilled labour will be the abounding factor and capital the narrowest factor of economic growth. Under such circumstances labour-intensive methods must be chosen in the course of developing several spheres of industrial and agricultural production.

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We have so far tried to describe and define the criteria that are the most typical of economic underdevelopment as a state of the national economy.

We have often emphasized that the intensity of the various criteria may be very different because the aggregate indicators applied extend from an undefined lower limit to a definite upper limit on the scale. Obviously, the upper limit will be close to the lower limit of the subsequent category we may form on the basis of the same criterion.

We have also said that, in respect of a few criteria, an underdeveloped economy may attain the figures of a medium-developed economy.

According to the dynamic approach to the problem—the only kind of approach permitted in economics—the present level is one of the constituents and factors of future development. This constituent, however, comprises a whole set of factors because the present level of an economy cannot be characterized by one single factor.

The fact, however, that the present level is one of the constituents of future development does not mean that the absolute or negative growth rate of the developing countries is determined exclusively or primarily by their present state.

The trends in the absolute and relative growth rates are, obviously, influenced also by other sets of factors or development energies, of which—in compliance with the purpose, views and structure of our monograph—we wish to mention the following two:

a) The natural, social and economic factors (potential energies) that do not yet assert themselves at the present level in a sufficient degree (the size of the country, the density of its population, the supply of raw materials, the character and endeavours of the political power, etc.);

b) The system of rational human decisions and actions by which the acceleration of the economic growth is achieved.

It is clear that the significance of the second group of factors prevails over the first. The initial level of the economy and its potential energies are elements on which rational human action is based. These questions will be expounded in Part Two.

Here the question arises how the initial level, i.e. in our case the state of economic underdevelopment as characterized by the above-listed criteria, should be incorporated into economic policy, that is into the theory and practice of national economic actions.

When answering this question it should be realized that economic growth is a complex process in which the growth factors appear first as targets to be realized but, after their realization, they become means able to set in motion other factors. Thus, a growth factor is at first an effect of some other cause, but later on it becomes itself a cause of further effects. Without describing here the growth process in detail (see later), let us stress that, when the cumulative effect of the economic factors is accounted for, the economic backwardness will turn out worse than it could be assumed on the basis of separate evaluation of each individual factor.

For instance: the acceleration of the growth process would require the increase of accumulation, but this is hampered by various factors as, e.g., the low level of income, the dependence on world economy and the outdated social formations. The lack of qualified labour and the low level of scientific capacity impede the development of sound proportions between the amount of investments diverted from consumption and the additional value produced with these investments.

Limited accumulation, on the other hand, slows down the growth of productive forces and thereby hinders the social and economic development without which there is no economic growth.

The scarce possibilities of accumulation set a limit to the increase of the national income, whereas the slowly rising national income is to be distributed among a rapidly growing population.

In the course of the economic cycle these factors and processes related to the concept of economic backwardness appear now as causes, now as effects. Owing to the scarcity of growth factors, it becomes extremely complicated to launch economic upheaval. The planned concentration of the available development energies has to liquidate not simply some bottlenecks but an almost general shortage extending over very wide spheres. The point is that the shortage of certain factors im-

pede also the exploitation of such potential energies as are otherwise available in abundance. There is an abundance, for instance, in unskilled labour. Yet the lack in qualified manpower hampers their employment. In certain countries of Latin America land is abundant but the prevailing ownership relations make it difficult, if not impossible, to utilize this factor.

From the fact that the almost general shortage of the factors influencing economic growth affects extremely wide domains, we may conclude the following:

a) A system of rational actions should be established, one which reduces the loss of energies to the minimum.

b) A complex system of actions, that is, a comprehensive economic policy, or "growth strategy" should be established, embracing all growth factors with due regard to their material and chronological interdependence.

c) A complex international system of economic assistance should be evolved, covering all insufficiently available factors of any important process, from the implementation of some major investment to a comprehensive target of science policy. Otherwise, the rate of growth will be determined by the scarcely available factors and not by those in which a relative abundance may be assured by foreign aid.

The low initial level, then, is not an absolute hindrance for accelerating economic growth, but it raises important requirements on the aggregate of rational human actions we call economic policy.

## CHAPTER 2

### Energies Affecting Economic Growth

It has been pointed out in the previous chapter that the present situation of the developing countries, which we tried to characterize with a set of criteria, does not really reflect the potential energies of these economies. By potential energies we understand the natural economic, historical and social factors significantly influencing the character, type, and rate of economic growth. Potential energies are, then, a very important constituent of economic growth, but prior to the launching of the growth process their advantages are very limited both in space and in extent. Moreover, in a particularly strained situation (e.g., when some raw material of world importance is available in large quantities in a country but its production increases slowly on account of outdated economic conditions), the unexploited potential energies may become dangerous to the given country.

On the other hand, when the economic growth is launched, the relative abundance of potential energies may counteract the scarcity of growth factors that are reflected in the low initial economic level.

Every national economy, whether advanced or underdeveloped, possesses certain potential energies but the character of these, their order of magnitude related to one another and hence their potential effects upon economic activities differ from country to country. The transformation of potential energies into development energies (exerting a cumulative effect) is the function of economic advancement. However, the existence or absence of these energies, their availability in larger or smaller quantities do not depend on the economic level. For instance: countries poor in raw material can be found among the most advanced, and countries richly endowed with raw materials occur everywhere in the economically underdeveloped parts of the world. There are densely populated states among both the industrially advanced and the economically underdeveloped countries.

Obviously, various types of potential energies (e.g. raw materials, arable lands, etc.) are already being exploited to a certain extent in every underdeveloped economy. The extent of exploitation, however, is heavily affected by the given economic system. Small communities producing some raw material are governed by one single economic force: to produce as much as is directly needed for their existence. This limit has nothing to do with the demand for the given commodity outside this small community. This commodity could multiply its output and sales by introducing a more complex economic activity connected with, and based on, world economy. In other words: the available potential energies can be exploited only

after economic growth has been started. In this case, the national market (and through it, the world market) promotes, by means of a complicated system of effects, the integration of small collectives producing raw materials into the economic circulation.

The lack of a well organized national economy and domestic market was a serious obstacle in the past to the exploitation of the potential energies.

The better exploitation and utilization of the potential energies promote the consolidation of the economic independence of the developing countries. The present world consists of national economies but every nation possesses and handles a certain part of all development energies of mankind. In our world economy, advancing under conditions of interdependency, no nation has the right—in the moral sense of the word—to leave energies necessary for the progress of mankind unexploited. This statement, naturally, applies not only to nations poor in capital and incomes in relation to the potential energies available but also to the better endowed. The acceptance of this obligation means for the developing countries that they must accelerate the utilization of their potential energies, while from the advanced nations it requires that, by the transfer of part of their development energies, they should contribute to the advancement of the countries disposing of less income and capital.

### “Poor and Rich Countries”

In the international political and economic literature it is usual to distinguish “poor” and “rich” countries, meaning economically underdeveloped countries, on the one hand, and the rest of the world, on the other. These terms, like all similar generalizations, are not exact and are liable to elicit superfluous disputes.

Most developing countries are poor as far as the present scarcity of the factors promoting economic growth is concerned, but are rich in potential energies which, in the long run, may give momentum to economic development. The potential energies, as has been pointed out before, can be transformed only by rational human actions into development energies exerting a cumulative effect.

It should be emphasized, however, that the distribution of the potential energies in the developing world, as we have seen, is extremely disparate, and in this respect the position of the developing countries of South-Eastern Asia radically differs from that of Latin America.

The advanced industrial countries, on the other hand, can be regarded as economies in which—as a result of economic development over several generations—the amount of energies accumulated in the long course of expansion considerably exceed the amount of energies still being in the potential form. But in this respect, again there are substantial differences between the advanced industrial countries. In Belgium or Switzerland, for instance, almost all economic energies are present in accumulated form whereas in the United States or Canada the potential energies play a much more important role.

The potential wealth of the developing countries may facilitate their economic growth. This means that the national income can still be increased by extensive methods for a long period. And in the course of extensive growth the conditions ensuring a transition to the intensive type of development (e.g. the establishment of a national science policy, the increase of the number of qualified experts, the permanent improvement of the economic organization, etc.) can gradually be created. The situation would be far worse if, on account of limited potential energies, the extensive growth type could not be practised, or very little time would be left for preparing the transition to the intensive type. If it were so, then beside the scarcity of the factors promoting economic growth and the limited quantity of potential energies (i.e. under the worst conceivable conditions), some "economico-political leap" would have to reorientate the economy into the intensive direction overnight. This would, obviously, not be feasible, and the growth type, despite the efforts of the economic policy, would turn extensive which would lead to disproportionalities seriously endangering the growth process.

The greatest potential energies do not involve, by themselves, economic growth. In our days this can only result from rational, concentrated human action. Some developing countries may have a comparatively small amount of potential energies, but even this amount would suffice to launch economic growth when rationally utilized.

Once economic growth is started, the potential energies exert a strong influence upon:

- a) the choice of the growth type,
- b) the development of the economic structure,
- c) the rate of growth,
- d) the relations of the developing economy to world economy.

The potential energies of economic growth can be aggregated in four factors:

- a) the number and the density of the population of the country,
- b) the relation of the areas suitable for cultivation to the population,
- c) the role of the explored, or unexplored but explorable, raw materials and primary energy carriers in the growth process,
- d) the effect of historic and geographic factors on growth.

In the following we shall try to analyse the character of these factors, the variants of their possible development and their effects upon the process of economic growth.

### Number and Density of the Population

1. According to the number of the population and the area of the country, small and big countries are distinguished.

The effect of the high number of population and of a vast national territory upon economic growth can be determined as follows:



The big countries have a greater weight and authority in international political life. The power and the international standing of a large developing country may be determined, in addition to its development level, also by the vast amount of its potential energies. Of these the energy embodied in the large number and growth trends of the population is the most mobile and elastic. The intensity of mobility (the mobility potential) may, naturally, vary widely depending on whether the measures taken by the central power really affect the large masses or not.

The potential energies of a large developing country usually arouse respect in others, and consequently these countries, under the existing international conditions, are relatively free to choose the road of their economic development, i.e., they are more independent of external political influences. For minor economic advantages nobody would risk to turn a possible friend into a factual enemy. The fact that a big country could become a large potential market in the future has, in fact, to be considered as one of its potential energies from the point of view of world economy. This circumstance may be deftly exploited by such a country in order to make the economically more advanced ones interested in the promotion of its economic growth. Although the quantity of goods it can import may be small in relation to its domestic needs, it may still be of decisive importance when compared with the export capacity of some industrially advanced small country.

2. Big countries with a large population can synchronously develop almost every branch of industry. Owing to the slight accumulation possibilities however, this tendency can be asserted only gradually. Besides, it should be taken into account, that the big countries usually dispose of large raw-material resources, and their abundance in manpower permits to introduce new branches of production without an excessive amount of initial investment.

In the course of further development, industry can be founded on the domestic raw materials.

On the other hand, the vast dimensions of the internal market, in spite of its low purchasing power, permit to introduce an economical scale of production. Since the acceleration of industrial development requires imports of productive equipment for a long time to come, it is obvious that the consumption industries have to play a leading role, first in import saving, later in the increasing of exports.

3. The population of the large countries is generally not homogeneous in economic and cultural respects. In the big developing countries there are usually significant national, religious and linguistic differences, too, among the inhabitants of the various regions. Hence, a sharp differentiation in the standards of living, economic level and methods of management in the different regions is almost general in such countries.

It follows that the control of economic growth must not and cannot be over-centralized. Creating an organic unity of the national economy is obviously one of the tasks of the central power. But when assessing the extent of centralization, the following considerations must not be neglected.

a) The economic development energies, in the case of regions different in national, religious and language respects, cannot be transferred from one region to another on purely economic considerations.

b) The central economic control can, at the outset, embrace only part of the population, because the government is unable to provide employment for all. Therefore the planned economic processes must rest partly on the spontaneous activity of the population. Appropriate efforts should be made and all available means used to connect up, by numerous ties, the centrally controlled and the spontaneous forms of economic activity.

c) At the outset, the central power is unable to obtain an all-round survey of the various endowments and particularities throughout the whole area of the country. This is due partly to the lack of sufficient experience of the central agencies and partly to the extreme differences existing in the economic system.

4. The economy of a large developing country is not necessarily sensitive to imports; i.e. the increase of imports may be eventually slower than that of the national income. It should, however, be remembered that economic growth may be strongly affected by the amount of productive equipment that may be imported without endangering the balance of payments. That is why the consumption industries should, at the beginning, be developed mainly in order to save imports. Particular attention should be devoted to the trends in agricultural production because, if its increase lags behind the population growth, the economy may turn extremely import-sensitive. In this case, the equilibrium of the national economy, a precondition of economic growth, will be affected.

Foreign trade will affect the national economy, for a long time to come, mainly through the development of *import demand*: the necessary amount of export will depend on the amount of necessary imports that have to be paid for. Accordingly, the conditions of equilibrium underlying the conception of economic growth may also be disturbed by export capacities falling short of the needs in foreign exchange, or when the quality of export goods is inadequate.

5. The big countries, irrespective of their economic development level, react to the changes in the economic conditions slower than the small ones. The different reaction time can be traced back to several causes.

a) The "large bodies" sense the outer impulses slower than the small ones.

b) Owing to the greater dimensions of their domestic market, the changes on the world market (e.g. technical innovations introduced in other countries, changes in demand, etc.) tend to affect them less, because of the smaller share of exports in the aggregate output.

c) Based on an economic conception once established are a large number of economic activities some of which are but indirectly affected by subsequent changes. Hence, any modification of an established conception would involve many different interests.

6. We have also to stress that the reaction capacity of a big developing country is much more limited than that of an advanced one. The major reasons are as follows:

a) Its own growth problems and complicated situation keep a developing country from devoting adequate attention to impulses coming from the world market.

b) A developing economy contains several rigid sectors, hardly able to adapt themselves even to domestic impulses. These rigid sectors, or even immobile economic institutions, obviously damp the elasticity and delay the reaction of the whole economy.

The lesser dependence of the big countries on the world market is expressed also in the small share of exports in their national income. This, however, should not lead us to premature conclusions, because the significance of foreign trade from the angle of economic growth and equilibrium is much greater than the ratio of foreign trade to income would suggest. In the second half of the 20th century economic growth cannot be conceived on the basis of autarchy. Obviously it is much more reasonable to utilize the scientific and technical achievements already attained elsewhere in the world than to discover them anew. The fact that a big country is more free to choose the type of economic growth does not mean that it is entitled to irrational decisions or is able to get away from the consequences of a mistaken economic policy.

### Sensitivity of Small Countries to Foreign Trade

There is no doubt that the economic growth of the smaller underdeveloped countries is extremely sensitive to foreign trade. In this respect the following factors should be taken into account:

1. The small developing countries have less weight and authority in international policy and are more vulnerable than the big ones. From a purely economic viewpoint, instead of the potential energies inherent in a vast population and area, other forms of potential energies may occur as, for instance, abundance in raw materials and primary energy carriers. But from the angle of international policy the situation is different, because wealth in raw material—when combined with limited political power—may be even disastrous for a small developing country. Its valuable raw material resources may arouse the interest of some big capitalist enterprise endeavouring to achieve monopoly or wishing to prevent its rivals from laying hands on them. In this case a crushing economic power, usually commanding adequate political exponents in the advanced capitalist countries, comes up against a limited political and a weak economic power.

A small country, then, must invariably reckon with the given situation when shaping its domestic economic policy. I do not mean to say that it should passively accept the requirements of the greater economic power, but rather that it needs political and economic allies for the protection of its economic independence. Failing this, it may produce the raw material in question but will not be able to market its products or will sell them under unfavourable conditions.

2. The small countries heavily depend on the world market and, owing to the rapid development of up-to-date industry, their dependence is constantly growing. This is revealed by the very high share of foreign trade in their national income.

For small developing countries the significance of foreign trade is particularly increasing because:

- a) Economic growth invariably involves the rapid rise of imports.
- b) Small countries are generally import-sensitive, i.e. their imports rise more rapidly than their national income.
- c) Most of these economies are export-oriented in the sense that they export mainly products which, owing to the lack of domestic demand and processing industries, are not marketable at home. Most of the exports consist of a few (frequently one or two) such products. On the other hand, these are extremely—sometimes decisively—important for the equilibrium and accumulation rate of the domestic economy.
- d) The integration of the subsistence economies into the economic circulation must be based on the system of commodity and money relations and therefore involves substantial new import demands and a certain increase of export capacity.
- e) The lack of capital, of up-to-date industrial capacities, of scientific bases and qualified specialists necessitates various types of imports. These “imports” taken in a wider sense (including also the purchase of know-how, licences, etc.) are not always of a bilateral character and are not always paid for by direct exports; but they invariably involve substantial consequences in the development of foreign trade.

As a result of all these processes the connections of the small developing countries with world economy develop at a frantic pace; their economic potential, however, does not necessarily increase to the same extent and at the same rate. Therefore their dependence on world economy and on their foreign-trade partners tends to grow temporarily, that is for a relatively long historical period. By pursuing a purposeful economic policy, however, they may substantially reduce their traditional, one-sided dependence.

3. Owing to the narrow range of their raw-material resources and to their limited domestic markets, only a few industries can be developed; this means that the directions and targets of economic development must be neatly determined. By the narrow range of the available raw materials, naturally we do not mean that there may be no large quantities of certain kinds of them; but the “spectrum” of the available kinds is narrow. It logically follows that only such industries are worth developing the products of which can be exported after a certain time with adequate profits, whereas the products of other industries not eligible for development must continue to be imported.

Hence the development policy of these countries regarding, for instance, the establishment of priorities and the concentration of scarce resources on a few chosen objectives, becomes oriented by foreign trade. In other words, the correct evaluation of investment efficiency chiefly depends on the correct assessment of the expected export and import flows that will be brought about by the projected new industry. With accumulation possibilities being restricted, the new industry must theoretically compete with other possible industries by promising a more favourable influence on the trade balance. (Let us note in parentheses that the foreign-trade activities associated with the establishment of a new industry should

be understood in the broadest sense of the term, i.e. they include not only the import of the necessary capital goods but all possibilities and necessities arising from the modifications in economic circulation to be brought about by this new industry.) It follows that, before investment decisions, the export efficiency of the planned new products should be assessed in relation to the foreign goods that will have to be imported in consequence of this investment decision. This, however, requires an estimate of the future trends in the terms of trade. When available resources are limited, any positive economic decision (as e.g. the choice of the industry in which to invest) involves a series of indirect negative decisions forbidding the utilization of a certain amount of resources for any other purpose. Yet, certain needs must be satisfied whatever the circumstances are. It is exactly therefore that a well organized co-operation between several small developing countries, when establishing their policies of industrial development, is of very great importance for economic growth. Later, in connection with economic policy and with the role of the developing countries in world economy, we shall come back to this question (Chapter 8).

4. The population is usually more homogeneous in the small countries than in the larger ones: the differences between the inhabitants of the various regions in respect of origin, religion and traditions are less pronounced. (The sparsely populated countries i.e., those with a small population over large areas, may be excepted on account of the scarce intercourse between the widely differing ethnic groups.) The rather homogeneous character of the small countries is generally coupled with the lack of major cultural differences between the various parts, which facilitates the extension of the economic activities and raises fewer problems regarding their geographical location. When transport facilities are good, decentralization has no decisive importance and many a branch of economic activity can be geographically concentrated.

In large countries the establishment of an integrated national economy may require a considerable time. (A case in point is the gradual integration of the economic activity of North, South and West in the United States over three to four generations.) The economic development of the relatively backward areas (as, e.g. the industrialization of Southern Italy) is naturally more costly, and exceptional advantages should be granted to capital in order to change its location policy.

At the outset of the growth period the advantages inherent in the homogeneity of the small countries do not come to the fore. Even here, the differences in the cultural level of, e.g. the coastal areas and the other regions may be substantial, the road and railway network is usually sparse, and the communal establishments show considerable discrepancies; and while a relatively modern economic activity is going on in some parts, subsistence economy may continue to prevail elsewhere. But these regional differences gradually disappear or diminish in the course of economic development. Economic integration into larger units, however, is undoubtedly indispensable also for the small countries and may even require that several of them should join in order to realize such division of labour as can be achieved by a larger country on its own territory by co-operation of its different economic regions.

## The Effect of Population Density on the Possible Type of Economic Growth

The density of population, i.e. the number of inhabitants per square kilometre, is a paramount factor of economic growth. This factor alone can, naturally, neither start nor stop economic growth but can materially affect the selection of the growth type, the correct determination of the economic optimum and the superposition of the growth periods.

The trends in the density of the population are, evidently, not autochthonous. They result from many social and economic factors and may, in certain extreme cases, heavily impede and restrict the rate of economic growth. In this statement population density is looked upon as a factor influencing economic growth, i.e. as a *cause*, disregarding the fact that, in itself, it is again the effect of various causes. If, for instance, a vast but sparsely populated area were to become, on account of certain politico-economic or international considerations, more densely populated, then extremely extensive development lines would have to be followed at the beginning (say, the extension of nomadic pasturing in the frames of which the head of each family possesses a large animal stock ensuring comparatively high standards of living). These methods could then be altered at a later stage, when population density is substantially increased.

It is also possible that the acceleration of economic growth is hindered exactly by the great density of populations (e.g. on Java). Under such conditions the introduction of up-to-date economic formations requires tremendous investments. The amount of investments required exceeds substantially the amount of accumulation attainable in the existing primitive formations.

In countries where population increases rapidly, say, by an annual rate of 2 to 3.5 per cent, the future density of the population should be assessed on the basis of long-perspective estimates. Namely, the strategy of economic growth must operate with long-term plans and, in the scope of these, both the average population density and the relative weight of the various regions may undergo great shifts. (E.g., total population will grow three-fold, while that of certain areas grows five-fold.)

The number of the population is sometimes expressed in relation to the actual or potential size of arable land, or to the quantity of available mineral resources or primary energy carriers. Later in this chapter we shall investigate these relations; here we only mention that when the population is very dense, the per capita natural wealth may be insufficient, while at low density the natural resources cannot be sufficiently exploited.

In densely populated countries large labour reserves are available for starting economic growth. Hence the growth type to be chosen cannot be exclusively extensive because such a type is suited only for sparsely populated countries. The notions of intensiveness and extensiveness in this case mean how far, to what extent and in what form the potential energies are explored and exploited in the given economy. In this sense, the extension of nomadic pasturing to virgin land represents the extreme of the extensive growth type.

From the angle of utilization of potential energies, the economy of a country where part of the arable land is unused while the food supply is partly covered by growing imports must also be considered as extensive.

The term "intensive type of growth" usually designates a capital-intensive and labour-saving type of development. With large labour reserves and insufficient capital, however, this growth type is out of question. In this case the available labour reserves should, obviously, be concentrated on two main objectives:

a) to reveal and exploit the potential natural and economic wealth available in the country,

b) to utilize agricultural manpower in a way assuring maximum yields per hectare.

This particular growth type may be designated as extensive with respect to capital but is intensive in the sense that it exploits the potential energies represented by the labour reserves. A labour-intensive development cannot always replace capital, that is, up-to-date producing equipment (e.g. in metallurgy), but in certain cases it can (e.g. in agriculture and in most of the light industries).

The labour-intensive growth type has the disadvantage that the accumulation potential of the economy and the standards of living rise very slowly. This is obvious since, with obsolete techniques, the rate of invested live and dead labour to the new value produced is necessarily unfavourable.

Notwithstanding, it seems more reasonable (and even inevitable for social considerations) to start economic growth by utilizing the abundant labour reserves than to wait until capital becomes abundant. When dealing with economic policy we shall revert to the problems of purposefully employing labour reserves.

In countries with a medium population density, labour reserves will be available only over a limited period (say 15 to 20 years). Hence, the use of manpower as substitute for capital is restricted. The introduction of compulsory education and the prohibition of child labour considerably reduces the labour reserve. It is to be stressed that, in most developing countries, the share of persons of "working age" in the strict sense of the word is relatively low because those under twenty years constitute almost half of the total population. In countries with a medium population density even the mobile labour force necessary for agricultural development (e.g. irrigation) can hardly be ensured by a mass mobilization of manpower reserves. Combined methods seem to be more promising. From among investments serving the same purpose, the most important units should be implemented on the basis of up-to-date labour-saving techniques, whereas the units of local importance should rely on the mobilization of the local labour reserves.

With labour-intensive growth, national income rises through employment but is hampered by the lagging of productivity, whereas in capital-intensive growth the productivity is the driving force of development and underemployment is its break.

In most developing countries having a high or medium density of population, the density of different regions may vary within very wide limits.

Generally the natural factors (soil, climate, water regime) exert a much greater influence upon the economic conditions of the weakly developed countries than

on those of the advanced industrial countries. Moreover, the agricultural conditions vary within much wider extremes than in the countries of the temperate zones. This explains, in the first place, why the density of population is higher in areas having a favourable water regime (the valley of the Yangtse in China, the valley of the Nile in the UAR, Java in Indonesia, etc.) than in other parts. Population density is again higher in regions linking up the country with the flows of world trade. Hence the dense population of the seaports and coastal zones, and hence the underdeveloped economy and scarce population in the inner parts of the country.

At the beginning, economic growth tends to increase the differences in population density between the various parts of the country. Growth first requires the concentration of the development energies available in the relatively advanced regions. Consequently, the new types of economic activity are often superimposed on the old one, and employment usually grows in the more advanced regions. (There is an obvious exception when the exploitation of some raw material begins in a formerly underdeveloped region.) These new opportunities attract the more mobile (that is, younger) population of the less developed areas and elicit a strong migration. The rate of migration increases if the population of the less advanced areas is living permanently or periodically (e.g. as a consequence of a bad crop) under very bad conditions. Experience shows that in towns, even under adverse circumstances, employment opportunities (if only occasional) are more frequent than in the village. As a consequence of migration, the discrepancies in the density of population continue to increase, and this hampers the backward areas to be included into the circulation of the national economy.

In order to prevent migration from assuming exaggerated proportions, it is absolutely necessary to start some kind of new economic activity—by arousing the spontaneous forces of the population—also in the less developed parts of the country. The forms of such activity may be very different: handicraft, small-scale industry in co-operative form, the establishment of small plants, etc. Only such measures are able to prevent these areas from becoming economically “disorganized” to an extent that would hinder their successive integration into the organic unit of the national economy.

### Relationship between the Population and the Areas Suitable for Agriculture

The relation of arable land to the number of the population is an important factor for the national economy, and a factor of growing importance for the world economy as a whole. There is a world-wide debate on how long the available areas will be sufficient to feed the population of the various countries, continents and of the world. The present food production of mankind is known to rely almost exclusively on the yields of the soil since food extracted from water



(fish, etc.) constitutes less than one per cent of our total consumption. According to the varying conditions of individual countries, the rise of food supply can be achieved either by expanding the area of arable land or by increasing hectare yields.

For the time being, the per capita amount of potentially cultivable area is relatively large in the Americas, in Africa (except for some regions in the north), and in Australia, but is relatively small in Europe, and in Eastern and South-Eastern Asia. A considerable part of the potentially cultivable area is at present inaccessible for the population of the developing countries suffering under land shortage in consequence of immigration restrictions.

It is difficult to obtain a clear picture of the relationship between the potentially cultivable areas and those actually being cultivated in any one country or on any one continent. The ratio of the cultivated land is highest in Europe (31 per cent) and in the Far East (18 per cent). It remains below the world average of 10 per cent in the other parts of the globe except for the Soviet Union where it is exactly 10 per cent. It attains but 5 per cent in the United States or in Latin America and 3 per cent in Oceania.

Since World War II the area of cultivated land has risen by 11 per cent on the world average. The steepest rise was observed in Latin America (27 per cent), in the Near East (22 per cent) and in the Soviet Union (19 per cent).

Once economic growth is started, great efforts have to be made to raise agricultural output. The following factors are to be considered:

- a) the extremely rapid growth of the population (2 to 3.5 per cent),
- b) the low level of actual food consumption in calories, particularly in proteins, impeding regular economic (industrial) activity,
- c) the rise of effective demand, that is of purchasing power due to industrialization,
- d) the necessity of raising agricultural exports as the only means of maintaining the balance of payments in equilibrium.

Agricultural production can be raised in two different ways. They are applicable either simultaneously (combined), or successively, depending on the level of development attained:

- a) extension of cultivated land,
- b) increase of hectare yields.

The relation of the number of population to the potentially cultivable areas will substantially influence the choice of the rational development method.

In the advanced industrial countries the agricultural output has been increased by raising the yields during the past fifteen years. In Europe and North America the yield per hectare in the staple cultures, like cereals, maize, potatoes, etc., is twice to two and a half times higher than in Asia, Africa and Latin America. A substantial increase of yields, however, can only be achieved by heavy investments relying on a strong industry and on an advanced infrastructure.

That is why in some developing countries, particularly in those very densely populated, the extensive mode of increasing production, i.e. the claiming of new

land, proves more advantageous. Another thing to be remembered is that a rapid population growth in itself is an economic pressure rendering difficult or even impossible the application of economical (optimum) solutions.

In India,<sup>1</sup> for instance, the growth of agricultural production was substantially stepped up after 1950, resulting in an annual growth rate of 3.52 per cent between 1950 and 1960 as against the preceding decades when production increased but faintly or even diminished (e.g. between 1940 and 1950). The rise of agricultural production thus exceeded the population growth (1.98 per cent annually).

The 3.52 per cent increase of production was achieved partly by extending the cultivated areas (1.18 per cent), partly by increasing hectare yields (2.34 per cent).

According to Indian agriculturists, the cultivated area can still be increased by 15 per cent (by about 19 to 20 million hectares) in the years to come.

The extension of areas sown more than once a year constitutes a significant reserve for tropical agricultural production: in India this type of land can be enlarged by another 18 million hectares.

The extension of the cultivated areas is of paramount importance since India's population will treble within 50 years.

The question arises what investments are required for, and what efficiency is expected from, the cultivation of unclaimed areas. Of course substantial areas of woods and pasture will have to be preserved partly for climate regulation and partly for their yield.

According to agricultural experts, the largest unclaimed territories can be found in Latin America and in Africa, in the tropical zones: forests and savannahs. The soil of these areas is generally bad and shallow. When cultivated, it deteriorates rapidly on account of erosion and leaching. These drawbacks can be eliminated with great efforts, but this requires radical changes in tilling techniques and methods.

According to some opinions,<sup>2</sup> 20 per cent of the unclaimed "red lands" (i.e. lateritic soils) could be cultivated.

The food-producing areas in Africa and Latin America could in this way be augmented by 360 million hectares.

Further land could be claimed for agricultural production on Sumatra, Borneo, Madagascar and in New Guinea.

The arid deserts and waterless mountains constitute a significant part of the unclaimed areas. A great part of these could be made cultivable by irrigation, but this requires, in addition to water supply, vast capitals. The natural conditions in this respect are most favourable in Africa, in the Near East and in Central Asia.

In addition to the expansion of the tilled areas the extension of irrigation promotes also the increase of the yields from cultivated land.

<sup>1</sup> S.R. Sen: *Population, Land Resources and Agricultural Growth*. Report to the World Congress on Population, Belgrade 1965.

<sup>2</sup> R.M. Salter: *World Soil and Fertilizer Resources in Relation to Food Needs*. *Science*, Vol. 105, pp. 533–538. 1947.

In Latin America lands used for pasturing could be claimed for tillage if ownership relations were not hindering this process.

The principal method of raising agricultural output, however, remains the increase of hectare yields. In the recent decades these have risen very slowly in the developing world except for the Far East (for instance, the cereal yield per hectare has decreased in Africa, it has grown by 2 per cent in the Middle East and by 5 in Latin America as against the 9 per cent increase displayed by the world average).

The increase of hectare yield, as has been pointed out before, requires the concentration of great material and intellectual forces.

The improvement and extension of the water regime and irrigation over cultivated areas can be considered as a crop-increasing factor.

In India, for instance, by the end of the second five-year plan 32 million hectares were irrigated. However, by storing rain water (which falls during a relatively short period) irrigation could be extended to over 76 million hectares. The investments to this end—high dams, terrasses, irrigation plants and canals—are costly but it should be realized that in a tropical agriculture water economy is still the most mobile factor.

A reliable method of increasing crops is the improvement of the soil by fertilizers and crop rotation.

By the application of fertilizers, of farmyard manure and by including leguminous plants into the crop rotation the agricultural output could be raised, in the opinion of several experts, by 50 per cent in most of the developing countries within a short time.

According to the calculations of Indian experts, the doubling of the output would require large amounts of fertilizers: 8 million tons of nitrogen and 6.5 million tons of phosphorus pentoxide ( $P_2O_5$ ).

The fight against parasites and plant diseases is another important precondition of crop increase.

Animal husbandry in comparatively up-to-date forms is also an organic factor of the gradual intensification of agriculture. There are, however, cases (e.g. India and African countries) where the livestock is very great and yields very little, often less than the food it withdraws from human consumption.

Evidently, the intensive development of agriculture involves many more requirements. Stimulating agricultural prices and expansion of effective demand are needed; the treatment storage transport and processing of the agricultural products has to be ensured, the infrastructure—from the roads to professional training—must be constantly improved. Trade organizations capable of delivering fertilizers and quality seeds to the farmers should be created.

It is then clear that agricultural production can only be intensified as part and function of economic growth in general and industrial development in particular.

The rapid growth of the population impedes also the development of agriculture. The larger the population to be supplied with the yield of an unchanged or slightly increased area, the more investments are needed. In a country poor in capital, the growth of accumulation is strictly limited. Nor can, owing to the great

redundance of labour forces, forms of industrial production be introduced which, though they may accelerate accumulation, would at the same time substantially reduce employment.

The slowing down of the population growth would have a beneficial effect upon economic growth. The per capita national income would increase at a quicker pace, the burden of society connected with the maintenance of children would diminish and in this way—under otherwise identical conditions—the investments could be increased. The decrease in the rate of population growth would not involve a decrease of manpower for about twenty years.

Here again we come up against interdependent requirements. The decrease in the rate of population growth can only be the result of economic development, yet the acceleration of economic growth presupposes the decrease in population growth.

At any rate, the relation between the growth of agricultural output and of population is unfavourable in most developing countries and is likely to remain so for several decades to come.

In some parts of the world—chiefly in East and South-East Asia—the growth of agricultural production is in the danger of lagging behind the increase of the population. This may lead to the catastrophic situation in which the per capita consumption of calories and proteins will further diminish, i.e. the population of vast countries become undernourished. This, in turn, would mean that—owing to the extreme fluctuations of production as a function of the weather—tens of millions would die of starvation.

To prevent such a catastrophe, all developing countries must make great efforts—with the efficient help of the international organizations and the industrial countries—to achieve a rapid and stable growth of the agricultural production.

### Raw Materials and Energy Carriers in Growth

The explored and explorable raw materials and primary energy carriers play an essential part in the launching and the concrete forms and rates of the growth process. The relative importance, in this process, of the raw materials and in general of the natural factors is greater than in a moderately or highly advanced economy. There is a shortage in the factors influencing growth, and when this "general shortage" is associated with the lack of raw materials, then unskilled labour remains the sole factor of growth; and this alone is rarely enough for economic development to be built upon. The shortage or abundance in raw materials affects not only the rate and the equilibrium conditions of growth but also the economic structure in the making; sooner or later processing industries will have to be developed when valuable raw materials are available in abundance, while it would not be reasonable in the long run to develop industries for which the raw materials can only be acquired from the advanced world or from very far.

The validity of the above statements is not affected by the fact that the relative importance of the raw materials decreases for the advanced industrial countries

(and for world economy as a whole, since the processes and changes of the latter are governed chiefly by the advanced industrial countries). Namely, this decrease is due to particular processes in advanced countries, processes that have not yet taken place—or even started—in the developing areas.

The assertion of economic tendencies, not unlike that of some physical phenomena, is bound to a limited scale of conditions, i.e. their effect is nil or different above or below that part of the scale. In other words: a weakly developed economy is unable to take up impulses to which an advanced one would react, because the reactions of the former are governed by other impulses. The conflict derives from the fact that decisions considered as rational within a given national economy have to be confronted with, and judged by, the logics of a world economy which, in turn, is governed by other impulses. Let us suppose for instance, that most of the raw materials extracted have to be exported, i.e. the decisions concerning quantity and quality of production etc. must depend on world market demand and prices. If the demand for the given raw material decreases under the impact of factors and driving forces prevailing in the advanced countries, the production cannot be raised to what domestic capacities would permit, and the prices may fall even in the case of production restrictions.

It seems therefore appropriate to examine the expectable changes in the trends responsible for the decrease of the demand for the raw materials in the advanced countries during the past fifteen years. Should these tendencies prove to have a permanent character, then the role of the raw materials in the growth of the developing countries will be less than it was during the industrialization process in the 19th and in the first half of the 20th centuries.

On the other hand, viewed from a long-term perspective, the growing consumption of industry, the further expansion of economic activities, armament, as well as the constant deterioration of the conditions of raw-material production on the traditional sites (as, for instance, coal and ore exploited on the surface or their mining close to the sites of utilization where this practice can no longer be continued), seem to indicate that high-quality raw materials will gain importance on the world market. Even a country like the US, possessing a wealth of natural resources, is becoming more and more dependent on the import of raw materials.

Yet the increasing importance of raw materials in the long run seems to be at variance with the short-term expectations in raw-material utilization. Today the economic superpowers (monopolies), which are capable of assessing world production and dispose of the majority of what is offered on the world market, are in a position to impose unfavourable conditions on certain sites for economic or political reasons.

It logically follows from the above that the relative unfavourable level of the prices of raw materials is due not simply to the appearance of a technical trend expected to last for a longer period but also to the business policies of the economic superpowers (oligomonopolies). Contemporariness or novelty in technology is a major factor in shaping prices on the world market; and this again favours

economic organizations amply provided with capital, scientific capacities and highly qualified labour.<sup>3</sup>

Examples of industrial development relying on other than domestic raw-material bases can, of course, be quoted from the past (cotton industry in Britain or in Switzerland), and many instances can be listed in which only the high skill of the population or some concrete historical conditions predestined a country to develop an industry (e.g. watch making in Switzerland). In spite of these exceptions it is obvious that the lack or shortage of the basic industrial raw materials (coal and other primary energy carriers, iron ore, etc.) has up to the second half of our century hampered, their occurrence promoted, industrialization. (The lack of coal in Italy, for instance, has hampered Italian economic development and even made it dependent on other countries.)

Ever since the industrial revolution, civilization has increasingly relied on inorganic materials, with the progress of industrialization the consumption of mineral substances and of primary energy carriers has rapidly increased. The output of mineral coal grew 4·17-fold between 1890 and 1960, attaining an annual two thousand million tons by 1960.<sup>4</sup>

Oil production rose more than ten-fold during the same period, exceeding an annual one thousand million tons by 1960. In the course of the past ninety years iron ore production has grown ten-fold, the production of copper ore increased forty-fold. The output of bauxite, one of the youngest raw materials, rose ten-fold during the 32 years between 1928 and 1960.

The technical progress in the advanced industrial countries, however, far from having reached its temporary culmination, has reduced the relative importance of the raw materials. This economic phenomenon, asserting itself more and more in world economy, can be traced back to several factors:

a) The specific use of materials (that is, the amount of raw material necessary to produce one unit of end product) has considerably decreased, and many industries have started to turn out their products in miniature proportions.

b) Various raw and basic materials may be used for the same purpose, ensuring different grades of economic efficiency. The more efficient material does not oust abruptly the less efficient ones; it is being gradually substituted for them, as e.g., oil for coal. The competition of the raw materials serving similar purposes becomes more and more intense, to the benefit of the economically strongest purchasers. Raw-material producers wishing to raise prices or to improve other business conditions must fear that the rival materials may gain ground by making new con-

<sup>3</sup> The data on the future role of raw materials and energy carriers are taken from the *Proceedings of the United Nations Scientific Conference on the Conservation and Utilization of Resources* and from the report of the Paley Commission (*Resources for Freedom, Foundations for Growth and Security*). The work of the Paley Commission is known to have later been submitted to strong criticism, but the reasons and principles underlying this criticism do not affect the inferences we have drawn from the report.

<sup>4</sup> *Világgazdasági idősorok* (Chronologic Tables of World Economy), 1860–1960. Közgazdasági és Jogi Könyvkiadó, Budapest 1965.

cessions. As a result, the prices of the raw materials tend to fall and the terms of trade are getting more and more unfavourable for the countries producing them.

c) The extremely rapid spreading of the synthetic materials.

d) The substantial reduction of the real costs of transport. This process has again weakened the position of the countries producing raw materials because earlier, owing to higher transport costs, certain voluminous basic materials (e.g. coal) could be economically imported only from a limited distance, whereas today these or at least some material replacing them (e.g. oil for coal) can be imported from practically any part of the world.

If we want to foresee the position of the raw materials in a future world economy (say, for a few decades) we obviously must not simply extrapolate the present processes.

A case in point is the position of the agricultural products on the world market (of the "staple foods" in particular) whose position is being gradually transformed by the rapid growth of world population. Many economists and politicians consider the consolidation of the agricultural prices *exclusively* as an achievement of the governments of the corn-exporting countries. It is no part of our intention to underestimate the significance of the relevant economic-political measures (subsidies to the producers, government stockpiling) yet we want to point out that not only the measures have improved but also the demand on the world market has increased, partly by purchases on behalf of countries that can pay for their import (USSR, China, etc.) and partly by the "passive pressure" of countries that can not yet pay but are potentially unlimited consumers. If the large corn-exporting countries (chiefly the USA, Canada and Australia) are able to increase the area and the yield by capital-intensive but labour-saving methods, the increase will prove a good business even if 10 to 15 per cent of their crop were to be shipped gratis to countries suffering from shortage of foodstuffs.

In the subsequent decades the situation will further change in the sense that the demand for agricultural products will increase and part of it will gradually become "effective". It follows that we shall have to reckon with solid or rising agricultural prices in the course of the subsequent decades. We have quoted this example only to show the dangers of a mechanical extrapolation.

### Trends in Industrial Raw Materials in the Coming Decades

The trends in the situation of the industrial raw materials will similarly depend on:

a) whether technical progress leading to the decrease of the specific use of the raw materials and to additional substitution possibilities will continue;

b) to what extent industrial production will grow in the coming decades when theoretic demand will be determined by the rapid growth of the population and by its other causes, whereas effective demand will depend on the rise of the purchasing power, i.e. on the rate of economic growth;

c) the rate of the growth of explored and potential reserves in raw materials to the expected development of industrial production.

Technical progress will obviously continue to reduce the specific need of raw materials and will increase the demand for some selected goods rather than for raw materials in general. The countries on the way to development are generally rich in primary energy carriers (at least, on a regional or continental level but not necessarily in themselves) although they may have shortages in one or another specific raw material (e.g. coking coal). This circumstance, however, does not alter the dominant character of the new economic factors induced by technical development.

A population used to low standards of living will react to rising incomes, in the first place, by increasing food consumption. The demand for industrial consumption goods, possibly for textiles, will increase only in the upper income layers. The level of clothing expenditure is, in most developing countries, closely connected with the progress on the social ladder, and therefore a significant increase in consumption and in demand for raw textiles can be expected. It would be difficult to guess what share of the increased demand would be satisfied by synthetic materials coming from the industrially advanced countries. Synthetic textiles have spread rapidly during the last fifteen years. It seems probable that they will cover an ever increasing part of the growing demand. In other words the demand for traditional textiles is not likely to grow at such a rate that it could counteract the overall decrease of demand for raw materials in general.

Economic growth, however, will substantially boost the demand for investment goods.

As a consequence of the technical revolution, the demand for investment goods rises also in the advanced world. The question is whether this double rise of the demand counterbalances the decreasing tendency of demand for raw materials. Future development will be affected by the rate of purchasing power the developing countries will use for buying capital goods. If they can buy such goods on long credits and can utilize them efficiently in their domestic economies, that is, in a way assuring comparatively constant growth rate, then the amount of raw materials required for the production of investment goods may rise, if only at a slow rate. It should, however, be kept in mind that in the industrially advanced countries new raw materials may come to be used while in the developing countries new deposits may be discovered and exploited. Such changes are susceptible of increasing supply and of leading to further price fall.

The mineral resources of our planet are yet far from being completely explored. The potential reserves of the individual countries are not known exactly. According to the available data and estimates, Latin America seems to be rich in mineral resources.<sup>5</sup> Africa is also comparatively rich in minerals. On the other hand, the countries of South-Eastern Asia are less endowed, except with certain metals. The

<sup>5</sup> According to reliable estimates, Latin America possesses about one-third of the world's copper and iron ore reserves, two-fifths of all bauxite and about one-tenth of all oil, zinc, lead and tin. This continent heads the world list in twenty-two important raw materials.



United States and the Soviet Union are assumed to be best supplied. Latin America is poor in coal, and this may become an obstacle to economic development except when other sources of energy can be explored. In China the lack of high-quality iron ore causes serious problems, whereas India is rich in iron ore.

According to experts (the Fischer-Potter estimation), the iron, aluminium and manganese reserves known so far seem to suffice until the year of 2000 even if a growing rate of exploitation is assumed. What is more, these reserves can cover the needs of the coming decades without any substantial rise on production costs.

On the other hand, the demand for copper, lead and zinc will in the coming decades exceed the capacity of the known deposits. This problem will have to be solved by discovering new deposits or by a partial substitution of these non-ferrous metals. It is still possible that in spite of the successful solution of these tasks the prices will go up.

During the next 150 to 200 years there will be no shortage in primary energy carriers, although their extremely uneven distribution by countries and continents will present serious problems. The energy carriers of mineral origin, such as coal and oil, will for a long time satisfy the growing demand. The huge water energy potential is another large source of reserve. (About 40 per cent of the world's water energy potential is concentrated in Africa.) The increase in the production of nuclear energy can also be relied on as it will soon be able to compete economically with the traditional energies. It can be expected to be widely used in such industrially advanced countries as are not sufficiently provided with traditional energy carriers.

This short analysis shows that there will be no sudden increase in the demand for the classical raw materials in the coming decades. Some factors tend to reduce, others to increase, demand but the balance does not seem to be too favourable even on assuming optimum trends. Nor can we expect the emergence of new factors of such an elementary force as was created in agriculture by the recent population explosion. Hence, the developing countries must not rely for their economic growth on a one-sided increase and a preferential treatment of their exports of raw materials because this will not be possible under the conditions of the world market, not to speak of the other factors. In other words: the developing countries are unable to acquire such comparative advantages over their economically more powerful and stronger partners as, under different circumstances, would be inherent in the production of raw materials.

The raw materials of the small and weak countries still attract certain large enterprises. The active participation of foreign capital in exploitation causes the profit to be transferred instead of being used for domestic accumulation. The conclusion is that the export of raw materials has a significance for economic growth only when it permits accumulation by means of which capital goods can be imported. Yet even in such favourable circumstances the export of raw materials cannot become the principal driving force of economic dynamics.

When examining this question from the angle of the domestic economy, it becomes clear that:

a) processing industry should be developed in branches for which the raw materials can be produced at home or in the nearby countries,

b) for several decades it is not expedient to develop such industries as require imported raw materials. A weak economy, i.e. one producing at comparatively high costs, will not be able to operate efficiently, and its equilibrium will be endangered if, beside production equipment, also raw materials ensuring uninterrupted operation of the plants are to be imported.

If the capacity of the processing industry relies on domestic raw materials available in large quantities, the national economy is more or less protected against such threats from the part of world economy as, e.g., the reduction of demand. The creation of domestic processing industries contributes to the rise of demand which, in turn, may improve the prices.

The adequate exploitation of the raw materials, however, involves certain difficulties.

a) The principal obstacle consists, in most cases, of the lack in capital and in qualified specialists. The exploitation, classification, transport and storage of the raw materials require many additional investments, and this may render the capital output ratio unfavourable.

Raw-material production, when no longer in the primitive state, requires a large number of experts, including geologists, technicians and economic specialists, part of whom will have to be invited—for the time being—from abroad.

b) It is a great problem to secure markets for the new enterprise; capital, reserves and excellent organizers are wanted for this purpose but are not available in most developing countries.

These are relative difficulties in the domestic economy which comes up against similar difficulties in other branches as well.

Nevertheless the presence of domestic raw materials improves the conditions for economic growth because:

a) it promotes the gradual development of the domestic processing industries (e.g. to produce first semi-finished then finished goods),

b) with due foresight it may promote the growth of exports and thereby earn foreign currency (a bottleneck factor) for the country,

c) under fortunate conditions—in spite of major additional investments—it may contribute to accumulation.

The production of industrial raw materials is extremely sensitive to the world market, and wide fluctuations may be expected in the export incomes depending on the market and on the consequences of technical change.

To reduce the amplitude of the expected fluctuations it is indispensable for the countries producing the same kinds of raw materials to co-operate by determining the orders of magnitude of production and by influencing the prices and other business.

Finally, let us not forget that an economically strengthened developing country will be able to exploit its raw materials more consistently and with higher efficiency.

## Historical and Geographical Conditions Affecting Development

The trends in economic growth are greatly affected by historical circumstances and by the factors of political geography.

The historical circumstances obviously affect all present processes and endeavours to start and continue economic growth. The initial level of the economy is itself the outcome of the previous historico-social development. These questions have been touched upon in the previous chapter. Now we wish to examine such results of historical development as can be detected, beside economic facts and social structure, in the way of thinking of society, in its value judgements and norms. We know that public opinion is the product of economic and social development. No human way of thinking can be separated from the living conditions of mankind. But public opinion does not follow mechanically the social and economic changes, since the past of mankind, handed down in works of art, in value judgements and traditions from generation to generation, is an organic part of our way of thinking.

When launching economic growth, it must not be forgotten that, as a result of historical development, the population's approach to the aim and meaning of life, to its beauty, to work, success and to development is greatly determined by the inherited value scales. What we want to say is, in other words, that the social dynamics, the most important driving force of the growth process, does not develop automatically and rapidly in the wake of the government's initiatives. On the contrary, serious discrepancies may come into being between the economic endeavours of the government and the reaction of the population to them.

In an economic growth started "from above" a transitional absence of social dynamics must be reckoned with. The economic growth of the developing countries has to be launched from above on the basis of purposeful, rational and central decisions. This is obvious since present economic backwardness is the outcome of the society's having failed, some time in the past, to create conditions suitable for economic growth and its having been prevented, later on, by external forces of colonialism from starting a growth process corresponding to its own interests. Today there is no time to wait until the growth process begins "from below". Moreover, it could probably not even start to take shape under the present world-trade conditions.

Obvious as it is that only the central power can be the starter and motor of the growth process, it remains a fact that all development started from above—despite its necessity and many positive effects—elicits certain conflicts. It is possible that the same or even graver conflicts would have developed also in the course of spontaneous development; what is more, a circumspect economic and political leadership can save the population much suffering they might have had to endure in the course of a spontaneous development. But the conflicts in a spontaneous development are attributed by most people to evil men, to the heartlessness of others and not to the government or to the political system, while in a centrally directed economy all conflicts are ascribed to government measures or to the political system in general.

Not many can understand that the population is spared much future suffering and difficulty.

Another psychological advantage of spontaneous development is that the new way of thinking required for the new situation gradually gains ground in intellectual and economic debates affecting public opinion. The development of public thinking is also furthered by the fact that a growing number of direct interests are linked up with the changes, and social institutions are gradually transformed with a preference to the new development. The mode of progress is also simpler because deliberate decision is needed only in connection with the subsequent steps, the rest follows logically from it. But in this mode of progress only the "mature questions" come up for decision because the acting persons cannot see beyond them.

It logically follows that within a medium or long period this mode of progress involves much suffering, difficulty and injustice which could be avoided in a centrally directed economy.

### The Conception of Development as a Catalyst of Social Processes

The economic growth of the developing countries is started by a conscious, foreseeing layer recognizing the trends in international development and aware of the fact that an economically backward country is unable to maintain its independence and secure the well-being of its population. The way of thinking of this layer flows through political parties and governments, feeding the process of national activities in the form of a political and economic programme, a coherent, comprehensive concept opposed to the existing conditions. The form and time in which this concept appears are essentially the result of rational and purposeful decisions and not of slow, gradual changes.

Thus the new concept is a catalyst in the life of the society. The political forces crystallize around it either by undertaking to put it into practice or by opposing it. In other words: while at the time of the anticolonialist fight the political forces were considered progressive or conservative according to their attitude taken in this fight, now the new concept induces a re-grouping of political forces.

The new concept discards many value judgements inherited from the past and directly or indirectly inspires a new way of thinking corresponding to the postulate of economic growth, a new approach to work, to the meaning and aims of life, to development. This mentality is opposed to the traditional value judgements which were held by public opinion to express "the natural order of life". Consequently many find themselves emotionally opposed to the new concept, or at least unable to identify themselves with it. Besides, the really new elements that have to be induced in the life of the society are comparatively few; many institutions of the old order must necessarily be maintained. The psychological uncertainty of the masses and the effect exerted by the surviving institutions of the old society must be counterbalanced by one single factor, the confidence in the political leadership. Confi-

dence has a vital importance as the actual achievements of the new concept become apparent only after several years or decades.

The way of thinking required for the acceleration of economic growth of a developing country must not be mechanically identified with "progressive thinking" in the political sense, although the creation of the social conditions of growth is, no doubt, primarily a question of political power.

It is well known that politically progressive people may advocate unrealistic economic conceptions since in the developing countries the majority of intellectuals capable of normative thinking consist of jurists, priests, etc., that is, people to whom economic reality is more or less foreign. On the other hand, the existing economic activities are mainly agriculture and mining, and the individuals and groups belonging to these professions often have a contempt for modern economic life and its accessories, especially, to trade and to open efforts to acquire profits. These outdated views and opinions may easily be incorporated into the new economy and become the sources of troubles, difficulties and losses. It must be remembered that capitalism has contributed to the development of several human faculties, such as the spirit of enterprise, the assumption of risk, mobility, etc. which are indispensable constituents also for the economic growth of a non-capitalist society.

Therefore the shaping of a correct economic public thinking and the creation of an atmosphere favourable to growth constitute a vital question of development. Mentality can be shaped not only by education and political persuasion but also through an economic policy promoting social dynamics in every respect.

The degree of centralization in the centuries prior to the beginning of economic growth is an essential part of the historical heritage of the country. In traditionally centralized countries the task of the government is easier because people are used to accepting major initiatives from above. The organs, institution and methods of the centralized power by which it used to impose its will upon the population are still present and, after adequate modification, can be applied in the future.

The advantage of traditional centralization may be offset by a certain bureaucratization of the new leadership when it relies too much on the old institutions. In other words, the new leaders might be induced to believe that economic problems can be solved by administrative measures.

In the traditionally decentralized countries the situation is much more difficult because the central power, indispensable for the acceleration of economic growth, is still to be created. The central power should be shaped very carefully since the inherited decentralization is not the outcome of incidental development but the only possible means of holding the centrifugal forces together. A well organized economic circulation obviously contributes to the weakening of centrifugal forces and will increase the interdependence of the regions (provinces, states, etc.) of the country. We do not mean to say that a centralized power welding and embodying the unity of the new state should not be consolidated *before* internal integration is created by economic growth. Yet in the course of political actions it is imperative to alleviate the contradiction between the extent of centralization that seems

desirable for reasons of power and the extent that is possible on the ground of the actual state of the economy. In other words: political centralization must invariably proceed a few steps ahead of economic centralization but must never be completely detached from it. In the course of allocating the economic activities, efforts should be made to connect the various regions of the country by as many economic ties and common interests as possible.

Finally, the date when national independence was achieved as well as the composition (nationalities, origin, etc.) of the population participating in the growth process should be considered as historical factors.

Latin America, for instance, acquired independence quite a long time ago. At that time, the descendants of the quondam conquerors and the autochthonous population fought together against the mother country and the colonizers. (Bolivar himself is known to have come from a noble Spanish family and born in Caracas.) Thus the population welded together in common battles, sacrifices and sufferings jointly set out to build up the Latin American countries. Later the expansion policy of the United States became and still is a danger to the political and economic independence of these countries. The national opposition against the economic pressure of the USA, however, consolidated the positions of feudalism in many countries and turned part of the upper layers of Spanish-Portuguese origin against the ways of life of what is referred to as the industrial society.

Hence in these countries only those movements are able to accelerate economic growth which fill the scope of anti-imperialist fight with a progressive (radical) social programme.

Most countries of Asia and Africa have achieved political independence as a result of a process that started after the Second World War. But the national liberation movements, the true welders of national independence, emerged several decades before and organized resistance against the colonizers.

Some traces of colonialism can still be seen even in Asia, although the liberation of this continent is going on at a tremendous pace. The growing political consciousness, courage and pride of the people in Asia guarantee the complete liquidation of all traces of colonialism within a few years.

It follows that the postulate of economic growth in Asia will be put into practice by the present descendants of the original inhabitants, and any participation in it by others can only be conceived on a footing of equality between independent states.

Settlers could be found in large numbers also in the African countries, but these settlers oppressed the natives and fought against their ambition of independence, in the frames of fully developed colonialism. But in some cases the white settlers outstripped even the capitalists of the colonizing "mother" country in the exploitation and oppression of the African population in offending their human dignity.

No wonder that the new independent states (Tunisia, Algeria) compelled the European settlers to leave.

But the liberation of Africa is not yet completed; in South Africa and in South Rhodesia the European settlers, having separated themselves from the colonizing

mother country, assumed independent power and are oppressing the righteous efforts of the African population to achieve independence. In Angola and Mozambique foreign rule still subsists.

As a result of long and stubborn battles, the African soil will, no doubt, be freed from the conquerors oppressing and exploiting the African population.

Thus the process of economic growth in Africa will be carried out in the first place by the forces of the local population and in forms corresponding to the heritage of the ancient African civilizations combined with modern social tendencies

### The Effect of Politico-geographical Factors on Development

The concrete politico-geographic circumstances have an essential role in the trends of economic growth. This role was rather overestimated in the past; today it is often underestimated.

Every country lies in a definite region of one of the continents, and its fate is closely linked with that of its neighbours. In addition to this, the influence of the international political power relations can be felt at any point of the globe.

Economic growth is a complex process affecting the very foundations of all kinds of relations within a country; the socio-political ones and those of a cultural character alike, as well as the position of the country in international policy, on the given continent and region. Any country will be judged in international life by the results achieved in the course of economic growth. Since the adjacent countries will in all probability start to develop at a different rate, the power relations will change, and the country developing at a higher rate will turn out to be economically stronger and more prosperous than its neighbours. Economic development or stagnation heavily affects the political assessment of a country but the main impact of economic growth will be felt in the field of international economic relations.

Before starting economic growth, all questions concerning foreign enterprises should be settled, in the sense of preventing every sort of exports of capital inadmissible under the conditions of economic growth. The attitude of the progressive governments in this question has nothing to do with political doctrines but is a precondition of increasing accumulation, i.e. of launching economic growth. If the domestic accumulation is insufficient, then long-term foreign credits, granted under favourable conditions, are necessary. The country will start to import commodities it did not need formerly, and it will be compelled to increase the amount of its exports, i.e. to expand its activities on the world market. The attitude of a country will also be affected by whether the economic growth of another country crosses or promotes its own interests.

For instance, historical experience shows that the foreign enterprises operating in the various developing countries have powerful protectors abroad. These protectors weigh, in connection with the given country, more factors than do the capitalists concerned since beside the international conditions they must consider the

position and the plans of their own country as well as their impact on others. The fact of economic growth obviously induces the powers patronizing foreign enterprises to take new decisions and adopt new standpoints. A country starting the growth process must, however, foresee the expectable attitude of the patronizing powers since eventual economic sanctions might create difficulties for it on the international money and commodity market. If a country can no longer dispense with the good will of the main international factors, that is the economic powers controlling the money and commodity market, it will have to acquire partners who—owing to their political or economic conflicts with the patronizing power—are ready to fill the gap.

Although with much less intensity, the export trends and import policy involved by a growing economy exert a certain effect on the other participants of the world market, and especially of the given economic region.

Knowing that economic growth—the launching of which is the internal affair of every country—has a considerable impact on the other countries within a large geographic region or even a whole continent and eventually on the great powers, it is expedient to analyse all foreseeable political evolutions and situations before starting the growth process.

These international political developments will, at a certain point, again affect internal policy and have a fundamental, consolidating or weakening effect on the domestic political power relations.

In a given region or continent there will obviously be a leading power with widespread interests and connections throughout the world. If, for political reasons or owing to the pressure and influence of monopoly-capitalist quarters, the economic growth on the move unfavourably affects the given great power, then this may create difficulties in many ways other than direct intervention, such as:

- a) through the international commodity and money market,
- b) through the minor neighbouring countries rivalling with the given country (according to the ancient rule of *divide et impera*),
- c) through factions in internal policy that—for some reason or other—have a strong sympathy for the great power in question.

Allowance must be made for these possibilities as potential developments. Few are the countries without rivalling neighbours, nor have the power relations in internal policy assumed a definite shape, what is more, they are in transformation. We have mentioned that economic growth acts as a catalyst in internal policy; i.e. there will necessarily be forces opposing development (smaller and less aggressive under a politically wise government, but stronger and more aggressive under a politically intolerant leadership). The great power in question will naturally find allies among these forces, or if the great power has committed itself too far, then the neighbouring rivalling country will find the potential allies.

From this potential danger it follows that the international political situation must be given due consideration in every phase of economic growth. Nor can the historical, political and geographical situation of the country be neglected, when establishing the growth tasks and their rate.



It does not follow from this austere picture that economic growth cannot be launched or its conditions cannot be secured. On the contrary: it is the vital interest of an economically backward country to accelerate growth; otherwise it will be entirely at the mercy of the stronger economic and political powers. The best means to liquidate complete defenselessness in the international circumstances of our age is the successful achievement of economic growth. And in this respect it must not be forgotten that its success, like all major social objectives, will be decided in the period of transition. If the transition period is crammed with political and economic tensions, the balance conditions may be disturbed from one side or the other, and this may cost the government its existence.

That is why it is important to make headway invariably and consistently even with a burdensome historical, political and geographical heritage on our shoulders, but the rate of growth must be determined correctly and superfluous tensions avoided as far as possible.

### Sources and Anticipated Effects of the Differences between Developing Countries

In this first part of the book I have endeavoured to give a detailed and comprehensive analysis of the criteria of economic underdevelopment. The purpose of the description of the present situation (the given state of affairs) has not been merely to reveal facts and correlations but to clarify the conditions and circumstances of rational human actions. In this sense, the criterion of economic underdevelopment is the scarcity of available development factors. A dynamic way of thinking interprets economic underdevelopment as a state in which the scarcity of the most decisive development factors is not, or not adequately, offset by the abundance of other factors. On the contrary: the effects of the scarcity of various factors assert themselves in a cumulative way.

In this respect the economically underdeveloped countries are similar to one another and differ from other industrially more advanced countries. But beside the similarity of the starting level and of the intricate growth problems, essential differences can be detected in the developing world. These differences derive from two sources:

- a) differences in intensity of the various criteria of economic underdevelopment within the general scarcity of growth factors,
- b) differences in the natural, historical and politico-geographical heritage and situation.

The first type of differences manifests itself in such extremes as the per capita national income below \$ 100 or above \$ 300, in the degrees of sensitivity to foreign trade, in whether the outdated social formations rely on tribal or on feudal relations.

The second category of differences comes from the fact that the countries with vast or very small population, countries poor or rich in land and raw materials, American, Asian countries, etc. are assigned to the same category.

The differences of intensity in the scarcely available factors obviously deepen the differences in the natural, historical, politico-geographical heritage and situation of the countries with respect to the likely trends in the growth process.

The economic level and the natural-historical conditions are such factors of economic growth as substantially influence the trends in the growth process but do not determine them. What the start and the progress of economic growth depend on is rational human action. This transforms the potential energies into kinetic ones and adjust them to the objectives of growth.

The problems of rational human actions that are or can be performed in the economy will be dealt with in the second part of this book. Here we wish to point out briefly that rational human actions, as we use the term, include:

a) political and economic decisions on the macro-economic level, determining the short-term and long-term objectives of development and establishing priorities under them;

b) the complex and concrete conception meant to induce, strengthen and influence the totality of the economic and social processes in compliance with the growth targets for a determined period of time (a development conception for a period; i.e. economic plan);

c) the distribution and utilization (in the form of economic incentives and compulsions) of the available means necessary for the economic organizations to evolve their activities in compliance with the development conception in such a way that also social dynamics increases. Such measures constitute the mechanism of transmission or, as it is improperly called, of "execution".

From the above statements it unequivocally follows that in our interpretation rational human action (rational as far as the complexity and totality of the growth process are concerned) can only be conceived on the national-economic, that is, on a governmental level.

Rational actions are, obviously, performed also by other than government officials: entrepreneurs, artisans, farmers, etc. yet rationality as interpreted in the micro-economic sense may well be irrational on the national-economic level, just as much as rational decisions—rational from the national-economic angle—may be irrational on the level of world economy.

The essential differences in the initial economic conditions, in the natural, historical and politico-geographical heritage and situation will, obviously, continue to make themselves felt in the concrete trends of the growth process. And even assuming that political and economic actions will have identical efficiency, the differences in the initial level and those in the natural-historical conditions prevailing in the developing countries will continue to increase. It must be realized that above a certain point of the scale the development energies can be utilized more efficiently than below that point. On the other hand, the natural-historical and politico-geographical factors which have so far been passive turn active in the course of the growth process, i.e. become kinetic energies. But the effect of passive energy on the economic circulation—irrespective of its dimensions—is minimum or almost zero. If, on the other hand, the passive energies begin to move, they become

a driving force and can be determined quantitatively or at least assessed according to their order of magnitude. A country disposing of major potential energies can, assuming human actions of identical efficiency, produce more useful energy in the course of the economic circulation than can those possessing minor potential energies.

These differences, deepening during the growth process in spite of human efforts of identical efficiency, are further enhanced by the actual differences of rational human actions. Differences will arise in the growth rate, in the balance conditions, in the development of accumulation capacity, i.e. in economic results achieved over a longer period of time.

The effects of rational human actions accumulate also in this case since an efficient central (governmental) leadership contributes to social dynamics which has a beneficial effect on the economic targets and processes.

The conclusion is that the economic differences between the developing countries will increase substantially during the coming decades as a result of the essential disparities in the initial level, in the natural-historical conditions and in the efficiency of rational human actions. A fortunate concurrence of these three factors may raise certain countries within two or three decades to the level of the then moderately advanced ones, yet others—owing to less fortunate circumstances and to a lower efficiency of actions—will still remain in the category of the underdeveloped countries.

Economic growth is not the only field in which increasing disparities must be reckoned with. The position assumed by certain countries in international politics and domestic political development will start further differentiations.

And one more circumstance, regrettable as it is, should be taken into account: the conflicting political and economic interests of the developing countries between themselves. The frequent border incidents, national and religious conflicts often resulting in bloodshed are, together with the heritage of the past, part and parcel of the present situation affecting the actions, mentality and emotions of human beings. In other words, the contradictions, hatred and passions inherited from the past are obstacles to present co-operation. These conflicts have no rational core in the present, but they did not have any in the past either. So simply on account of their irrationality, they cannot be expected to discontinue.

The differences and local conflicts between the developing countries, though fairly frequent today, may still increase in number, as has been pointed out before, unless high statesmanship, mutual good will and tolerance, and the efficient political education of the masses put a check on the deepening of conflicts.

### Long-range Identity of Interests of the Developing Countries

We are still firmly convinced that in two basic questions of international politics and economy there is a substantial identity of interests between the developing countries:

a) to create international political circumstances enabling each country to decide freely on its own political and social development (in other words: all develop-

ing countries are interested in opposing neocolonialism and forcing back all neo-colonialist endeavour in any form);

b) to create international economic circumstances permitting to rearrange the development energies accumulated in the world and thereby to accelerate the economic growth of the developing countries.

The developing countries may approach certain international problems from different angles, may not be able to achieve co-operation in certain periods or may even find themselves opposing one another in international organizations, yet their identity of interests in the above questions will always revive their endeavours to co-operate, and in spite of possible conflicts they will agree on them.

These two problems will be among the most decisive ones in the coming decades of our century; they will act as catalysts of future advancement.

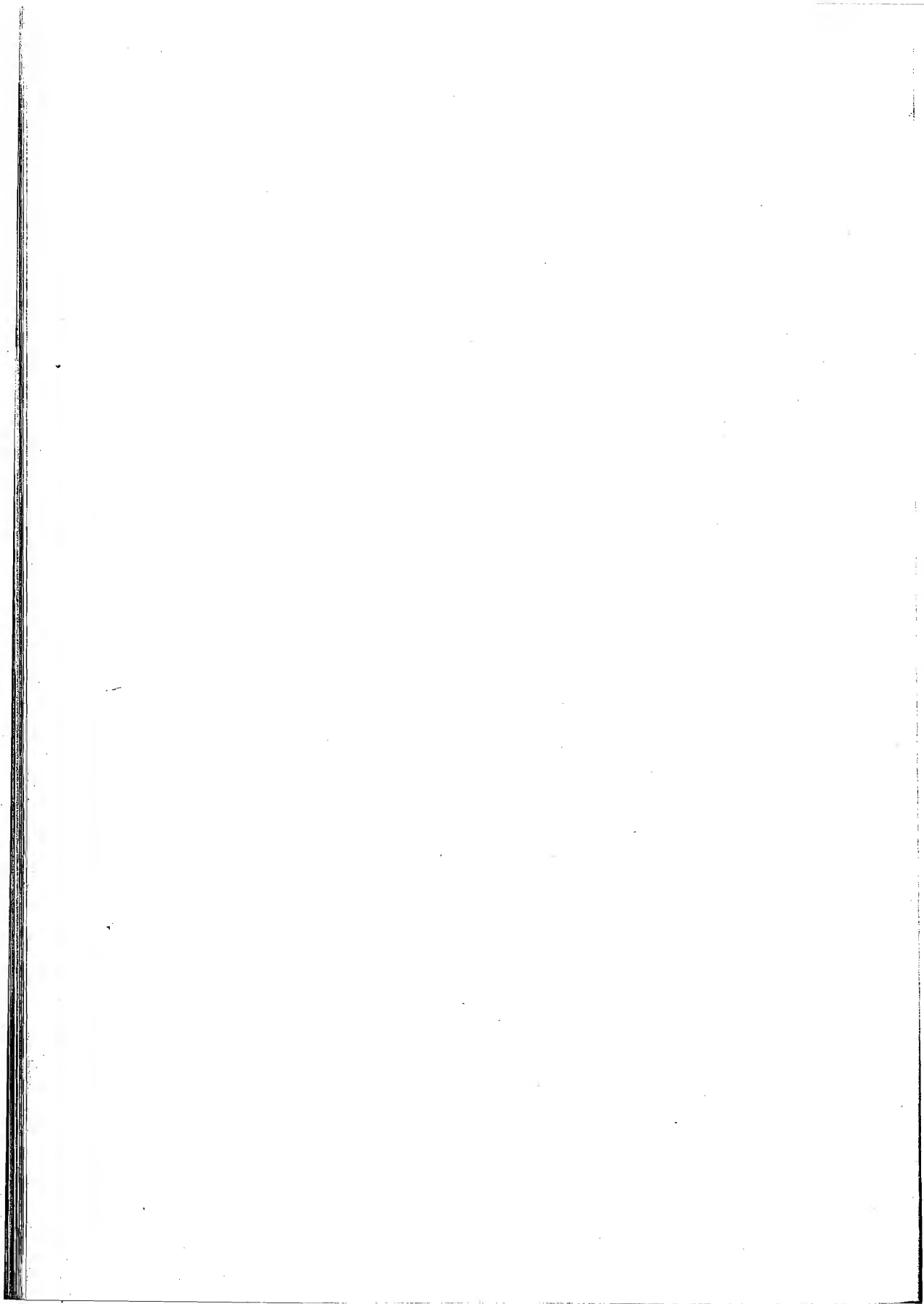
Around these two problems will cristallize the front lines of international and, in a sense, domestic politics.

It seems probable that—despite the growing problems, differences, tensions and possible crises—the co-operation between the developing countries in these two fundamental and catalyzing questions will be maintained in the course of the coming decades.

And if so, then this co-operation and solidarity may become a welding factor of our rapidly changing new world.

## **PART TWO**

# **The Role of Economic Policy in the Acceleration of Growth**



## Rational Activity in the Sphere of National Economy

The changing phenomena and dynamic processes of economic life can be approached from different angles and with different purposes.

If certain time series and major events are known, the long-term processes of economic growth can be analysed by establishing the growth rate of the national income and by clearing up the quantitative relations between this rate and the growth factors. The changes of the production pattern can be analysed under the various phases of the growth process in order to establish a correlation between the changes in the industrial structure and the per capita national income. The changes in the relations of a given national economy to the world market can be studied during the growth process. A correlation can be established between the attained level of economic growth and the educational level of the population.

All these studies are meant to reveal the regularities and particularities of the growth process, enabling us to draw some general conclusions. Evidently, from these conclusions and generalizations we cannot hope to deduce such quantitative functions, correlations or ratios as could be applied to every national economy, irrespective of its economic level, natural and social endowments and the time of observation. In fact, the analysis of the historical development processes shows that conclusions and generalizations derived from such an analysis only hold true for economies in such and such a situation, so to say, between two points of a general scale, whereas for other economies in a different situation, i.e., located below or above those points of the scale, the same conclusions would prove inappropriate.

Still, analyses will lead us to a conclusion of a more general value as to what types of correlations and ratios should be examined in national economies at an approximately similar level of development in the same historical period.

Even such a conclusion will not hold absolutely true, since, in the course of economic development, new types of interdependencies may become important which did not exist previously whereas others, having been in the focus of interest in the past, may become irrelevant. On the other hand, certain interdependencies that have cardinal importance in the economically advanced countries may completely lack or play an unimportant role in the less developed ones.

The approach of economic phenomena and processes with such methods is of a *theoretical and historico-analytical* character. In fact, theoretical considerations may, later on, influence economic action, in both spheres of decision and of

execution. Still, it has to be kept in mind that the origin and the existence of theoretical considerations based on historical analysis are independent of human actions aimed at forming the future.

### An Approach to the Phenomena of Economic Life from the Angle of Human Action

If, in turn, we intend to influence or to control the course of economic processes, e.g., to accelerate growth and to optimize the employment of the scarce factors of growth, we must approach economic phenomena from the side of deliberate and rational human action. In doing so, our primary concern is not to reveal the interdependence and regularity of past economic processes but to establish the normatives of rational action leading, through economic processes, towards specified *objectives*. In this case, the factors that may influence the approach to, or the realization of, our objectives have to be considered as a set of *means* the disposable quantity of which is restricted.<sup>1</sup> Our further investigation has to reveal how it is possible to augment, concentrate, distribute and rationally employ these means in such a way that they act as incentive energies in mobilizing the otherwise passive, potential energies. The successful solution of this task results in converting economic growth into a self-feeding, cumulative process. Namely, the potential energies, when mobilized, will in turn react on the incentive, inductive energy, and multiply it over a certain period of time. (Let us note in parentheses that we are considering, for instance, investments as a kind of inductive energy, and unexploited natural wealth as a form of potential energy.)

### Spheres of Rational Economic Action in a Centrally Directed Economy

Rational human action aimed at influencing and controlling economic processes extends to several spheres. In a centrally controlled national economy, the major spheres comprise the following:

- a) the decisions of the central (government) organs regarding economic objectives and priorities;
- b) the instruments (economic incentives and administrative constraint) serving to transmit the will of the central organs to the units of economic activity;
- c) the factual activity of economic organizations (state-owned, co-operative or private capitalist enterprises, artisans, units of agriculture producing for market or

<sup>1</sup> Of course, it must be stressed that some influencing factors are independent of the government in question (for instance, the influences coming from the world market) and therefore cannot be considered as factors present in a determined quantity.



for subsistence), an activity more or less influenced by the centrally introduced incentives or administrative constraint, depending on the interests and the level of organization of the various units;

d) the macro-economic processes, interdependences, effects and countereffects at the national economic level, resulting from the factual activities of the micro-economic units (economic organizations) mentioned above;

e) the subsequent economic decisions of the government that will be taken under the combined influence of the "impulses" received from the factual macro-economic processes, on the one hand, and of the general objectives followed by the governing power group, on the other.

It follows from what has been said that, in a centrally controlled economy, the government is the main vehicle of rational economic action. This does not mean, of course, that the various economic organizations are not making rational decisions. The normatives of rationality, however, are different on the level of the national economy and on that of the various economic units. By this, we do not say that the government can assert the macro-economic interests independently of the various economic units. In fact, economic progress can be attained only through the actions of the latter. Therefore, in government decisions due account is to be taken of the direct interest and possible reactions of the economic organizations in order to co-ordinate them with the objectives of society as a whole. It is evidently impossible to bring about a complete harmony, particularly when means are scarce. Therefore, the decision ultimately made by the government is likely to represent a compromise between the interest of society in its strict or abstract sense, and the direct interest of the economic organizations affected.

This situation is different from what prevails under capitalism where, in keeping with the capitalists' property right over most of the means of production, deliberate human actions complying with the essence of that socio-economic system take place on the micro-economic level, and only subsequently cumulate into macro-economic processes.

In a centrally controlled economy deliberate, rational decisions taken at the macro-economic level are aimed at influencing the decisions that will be taken on the micro-economic level, and at co-ordinating or eventually counterbalancing such micro-economic decisions.

Central control of the national economy may prove necessary and appropriate not only in the socialist countries where the overwhelming majority of the means of production are already in the property of society but also in countries where the micro-economic processes have not been efficient enough to start a process of growth; and this is the case in most developing countries.

In such cases the growth process has to be started by the central government, by injecting dynamical energies into a stagnating economy and thus to make up for the backwardness. This may prove necessary, independently of how great a part of the means of production is owned by the state. It remains a problem, of course, whether economic control can be achieved by a government which

– does not possess, or possesses but a small part of, the means of production;

- disposes of a restricted amount of economic resources (in other words, economic *power*) owing to the scarcity of growth factors;
- at the beginning cannot embrace, with its measures, the whole of the economic circuit owing to the wide sphere of subsistence farming;
- has limited experience in centralized economic control owing to its relatively "tender age".

Evidently, we cannot assert that, in the presence of all these adverse circumstances, the central economic control by the government will be a success. Yet when refusing the principle of government control over the national economy, we have to answer the question who or what type of institution is expected to accelerate economic growth. It is an indiscutable ambition of every nation to liquidate the disadvantages deriving from its backwardness. Now, in a country where capital is scarce, the power of native entrepreneurs is restricted and that of foreign capital very wide, we cannot rely on domestic capital for the solution of the nation's historical problems. May we rely on foreign capital? Independently of our opinion on the role of capital in general, it is evident that foreign capital, governed by its own profit interests, cannot be expected to contribute to the growth of a national economy or to the solution of its basic problems.

Here and there, foreign capital that takes account of the interests of developing countries may play a complementary part and may, in the case of a happy coincidence of circumstances, even serve as an incentive but it is not able to accomplish the national tasks connected with the acceleration of economic growth. All this leads to the conclusion that, in the developing countries of our age, what is missing is the centre of crystallization i.e. appropriate institutions and built-in economic activities.

It is doubtless, however, that the governments of the developing countries, in spite of their limited experience and material resources, do have some possibilities of starting economic growth. The most important of these may briefly be enumerated in the following.

a) The government as the centre of social, political and cultural development has an authority, persuasive force and administrative power to give an incentive to individuals and organizations. (In parentheses, we may add that the persuasive power usually rests on the political party commanding government actions rather than on the state itself.)

b) The government necessarily issues regulations and orders of economic character.

c) The state budget is being administered by the government and it may be made, with an appropriate economic policy, the main instrument of accumulating and allotting material resources, of redistributing national income.

d) The country's most important natural resources are exploited by the state, or—when exploited by a foreign-interest group—can be taken over by the state only. (The methods of taking-over may be, of course, different, but in the developing countries there are as a rule no such powerful local capitalists as could make partners for the foreign corporation.) When, in turn, the given raw material con-

tinues to be exploited by foreign capital yet part of the profit must be invested in the country (as is known, many such agreements are in existence nowadays), these amounts will flow into the state budget.

e) Through taxes the state is in a position to influence agricultural production. Local authorities and political organizations can find a way to extend their influence even to the sphere of subsistence farming and to direct this activity by the deft use of inherited social institutions, towards more up-to-date farming methods.

f) The state has the possibility to control and organize the development of external trade and finance relations.

Under such circumstances the moral and political responsibility for starting and accelerating economic growth is incumbent on the state, i.e. only the state can undertake it. It is evident, however, that with a view to the state's restricted economic power—as a result of the scarcity in development resources—it will have limited possibilities for using direct economic incentives aimed at influencing the activity of economic organizations, groups and individuals.

From the aspect of economic policy, in both theory and practice, a radically different situation will ensue if the state becomes the supreme controller and most active organizer of economy. This "new" situation has, in the socialist countries, a past of several decades; however, its thorough theoretical analysis is still lacking.

In a capitalist economy, the most important decisions in keeping with the basic features of the system are taken by the individual capitalist entrepreneurs. These, evidently, do not consider the national economic consequences of their decisions. Nevertheless, the economic activities started by their decisions take the form of socio-economic processes, influencing the political situation and the power balance. As it has been said here, in contemporary capitalism the economic control of governments is confined to attempts aimed at co-ordinating and correcting the economic processes, started by entrepreneurial decisions, and of their political consequences.

In turn, in a centrally controlled economy, the most important macro-economic decisions are taken by the power organization responsible for national policy. Such power organizations are seriously affected by every direct or indirect shift in the power balance. Hence, direct political considerations have a much greater part to play in their decisions. In other words, general politics will have considerably more influence on both the theory and the practice of economic policy than it had under capitalism. The economic theories based on capitalistic principles claimed that economic decisions had to rest exclusively on micro-economic, i.e., entrepreneurial interests, and if they reacted on general politics, the problems deriving thereof would have to be dealt with by the politicians. In other words, the economic decisions are taken independently of the politicians and government officials, and these have to consider the political consequences of such decisions as something definite and inevitable. In turn, in a centrally controlled economy, it is the politicians and government officials that make economic decisions, after having weighed their possible political consequences.

This situation is associated with several advantages, since in such a way it is possible to integrate the major political and economic decisions into a single, uniform conception. It is not to be feared that spontaneous processes within the economy might involve unwanted political consequences. Such "integrated" decisions can take a better account of the interests and the changing political mood of the population. It is also very important, in particular for societies scarcely provided with development energies, that through the channels of general politics the masses can better be influenced and mobilized in favour of the objectives set by economic policy.

### The Intricate Political Background of Central Economic Decisions

It is doubtless, however, that the method of "integrated decisions" is connected with dangers. These may be reduced and mitigated with due circumspection. But, in order to be able to do so, one has to be profoundly acquainted with the nature of these dangers. All details of this question cannot be dealt with here; we can stress only some of the most important features.

We have to assume that a government consists of both politicians and economic experts. In most cases, there can be no doubt as to the power relations within the government: power concentrates in the hands of the political leaders. As a consequence, the economic experts may argue and even convince, depending on their talent and eloquence, but, in any case, the final decisions will rest with the political leaders. Politics, however, in the same way as economics, covers many spheres, since it is but a collective noun for a set of very different activities.

The *first sphere* of politics contains, in our opinion, the problems connected with maintaining and consolidating the ruling political system. The scope of these problems is rather wide, since under the system of centrally controlled economy it is invariably the government that the population considers responsible for the development of the economic situation. Hence, the government has always to take into account how the population would react on an economic decision affecting broad masses. "Popular" decisions can hardly be thought of in view of the scarcity of resources. In most cases, "unpopular" measures will have to be introduced, and it needs much circumspection to decide whether the prestige of the government is strong enough to stand up for the measure planned. Obviously, the favourable results of most economic measures will come about only after a certain lapse of time (even several years) while the sacrifices connected with them are to be made right away. It is always a question of political confidence or distrust whether the population is likely to accept or to refuse a given "unpopular" measure. Again, political confidence is either strengthened or undermined by practically every measure introduced; namely under conditions of rapid social change, politically "indifferent" measures are almost inconceivable.

In connection with this first sphere of politics, it is also to be stressed that economic growth involves essential shifts in the social and political structure. Every state power has its convinced adherents and embittered adversaries; between these two poles are the large masses of the unconcerned or of those vacillating. It is relatively easy for a government to take such measures as favour the adherents of its power and dispossess its adversaries. Such measures are possible, however, only directly after the seizure of power (in the form of extension of rights or liquidation of former privileges). Later on, after the start of economic growth, the scope of such measures is rather restricted.

Economic growth is the concern of the society or nation as a whole; hence, even those previously indifferent or undecided have to be made interested in it by the government whose attempts to do so, however, frequently conflict with the conceptions of its most fervent adherents because these people want to strengthen their positions attained at the time of the seizure of power rather than to make concessions to others. This holds true even of the case when the "weakening" of the original supporters of the government is but relative, not affecting their position originally acquired. Namely, they invariably consider their privileges only as a basis for further extension.

In order to accelerate economic growth, the government is bound to co-operate with the whole population save for the most embittered adversaries of the system. This requirement involves essential shifts in the balance of power. On the one hand, it tends to extend the foundations of state power since it converts some of the indifferent or undecided into supporters. On the other hand, it may stir up discord within the camp of the original supporters since some of them will agree with, and others contradict, the new measures. This contradictory process is inevitable. The government must show utmost circumspection as regards shifts in the balance of power. Otherwise, it may lose part of its ancient adherents without being able to win over new ones. It may even occur that the dissatisfied part of the former adepts co-operate with some of the indifferent or vacillant elements in order to overthrow the government; and such attempts are very likely to succeed.

We do not endeavour here to expound all types of political difficulties connected with economic growth that may arise for a government after having come to power. The above statements and references are only meant to illustrate that in this first and uppermost sphere of politics the questions of "to be or not to be" are at stake. Hence, it is not only understandable but also appropriate and necessary for a government to give preference to political considerations over economic ones whenever the fundamentals of its power are being affected. A decision, however correct it may seem from the pure economic aspect, could be fatal when it shifts the balance of power to the government's disadvantage. All this, however, does not mean that the solution of difficult economic problems (for instance, of those relating to economic growth) can be voluntarily postponed. In any developing country, a government unable to accelerate economic growth will be overthrown sooner or later. If we stress the priority of political problems over those arising in the sphere of economics, we do so in the conviction that the principles of economic

policy are not self-contained, that their validity depends on a certain proportionality and co-ordination of the various processes. If there are economic experts who ignore or underestimate political considerations, there are also politicians trying to maintain their power position by postponing every decisive economic action. Their attitude, however, is obviously mistaken since the adjourning of problems and the reluctance to take clear-cut decisions tend to undermine rather than to strengthen political power. In the last analysis, the authority of the government before the nation as a whole is secured by its solving, or at least leading towards solution, the problems involved by economic development.

Thus, in the first and uppermost sphere of politics it seems quite justified to prefer the existential problems of political power against the principles of economic reason. It would, however, be inappropriate to consider too many economic problems as "existential" from the point of view of the political power; and it would be even fatal to hold over the solution of problems connected with economic growth. Again, we must stress that world opinion and history will judge the activities conducted by any developing country's government from the single aspect of how they have solved their problems related to the acceleration of economic growth.

As has been shown, in the first and uppermost sphere of politics a battle is fought between the adherents and the adversaries of the given political system where both parties attempt to win over the neutral, indifferent or undecided strata of the population. Thus, in this sphere the battle is about real aims, since the different opinions affect the most decisive problems of national and economic development. This statement has an almost absolute validity in the developing countries where the state, the political system and the power groups deciding its character are relatively new, and economic growth, in the capacity of a catalyzer, is converting the power balance inherited from the past and eventually shifted during the wars of independence.

### The Effect of Political Struggles within the Governing Power upon Economic Decisions

Political struggle, however, is being conducted not only for the seizure and maintenance of power but also within the group in possession of the power. Within the ruling political party and its government, essential divergences of opinion occur, represented by the various "wings" or political groups (left wing, right wing, nationalist wing, religious wing, etc.). The struggle between these belongs to the *second sphere* of politics, and extends also to the economic objectives (programme) of the government. Such differences of opinion rest in part on the conflicts of interests within the leading political group. They get solved, evidently, by way of compromises representing the optimal solutions under the given economic and political power relations. Another problem is that the parties to the discussion may anticipate an abrupt change in the balance of power and, in awaiting this, tend to post-

pone the economic decision in question. The danger of such a delay consists in intervening into the economic processes to be influenced and controlled, not at the appropriate moment or not in compliance with the situation, i.e. in applying outdated measures in a situation that had changed (as a rule for the worse) since the formulation of the measures in question.

We have seen that the struggles conducted in the uppermost political sphere mean, from the aspect of economic decisions, that, instead of the economic optimum (in the strict sense of the word), a *social optimum* is to be sought for, one duly accounting for the political consequences of economic decisions. The second sphere of politics acts very differently on the economy. Namely, when the political struggle within the group exercising power leads to unsound compromises or to the adjourning of important economic problems, then not even the social optimum (as a successful combination of political and economic interests) can be achieved. The gap between a given decision and the social optimum depends on the circumstances under which the compromise was born, and on the lapse of time between the "reasonable" and the actual time of intervention.

Finally, the *third and lowest sphere* of politics is the theatre of struggles for the strengthening of the position of various leading personalities and the forces (cliques) rallied around them. These struggles, independently of their outcome, tend to divert decisions from the social optimum since, instead of correcting the decisions to be made by taking a better account of the existing social power relations, they are aimed at strengthening the position of certain persons or groups. Whereas in the two upper spheres of politics real social interests stand behind the participants of struggle, in this lowest sphere the actions are motivated by personal or group ambitions, and references to common interest serve only as a camouflage.

It logically follows that political bodies responsible for the most important economic decisions are unable to take decisions aiming exclusively at a social optimum. Namely, the outcome of a decision depends not only on the amount and quality of knowledge and experience related to its object and available to the decision makers. It will bear also the mark of the mechanism through which the relevant conceptions are led into the vast flow of social actions. No political body deciding any question can sidestep the kinetic laws governing politics which essentially differ from those in economics. The political bodies responsible for the economic decisions shall do their best in order to synchronize political and economic development. Perfection in this field, however, has not yet been attained, as is shown by the comparison of the development of decentralized and centrally controlled economies. Focusing our attention now on the latter, certain "jerks" may be detected<sup>2</sup> in it. Those seem to result from two sets of circumstances.

a) When the economic leaders recognize the necessity of a certain measure and elaborate a proposition aimed at its realization, the proposition will enter into the

<sup>2</sup> A certain tendency to spasmodic development is, of course, present also in decentralized economies. This is due partly to the political and social changes which occur also in such countries and partly to the periodical economic fluctuations.

focus of political discussions and struggles. The point of time when it is accepted will primarily depend on when the political groups behind the proposition are able to enforce a decision. This invariably takes time, and a long time indeed, when it is about a change of major importance. Thus, even when the alternative propositions are elaborated in time, the economy will have to wait until a choice is made in the form of a decision, i.e. until the stimulating or mitigating forces become effective. In a centrally controlled economy the decision is made with due circumspection, and the economic organizations will soon adapt themselves to the new conception. Thus, the "dash forward" will be greater than it would be under spontaneous impulses, since adaptation anticipates, from the very beginning, the final outcome of the processes started by the measure. These two phenomena: the relative delay (from the economic angle) of the decision, and the subsequent impetus (which may even lead to disequilibrium when the decision is not circumspect enough) combine to form the first cause of the jerks observed in economic development.

b) The second cause of such jerks is simpler and more comprehensible. In every centrally controlled economy, there are periodically recurring dates at which certain questions have to be decided. The national-economic plans covering several years, as well as the annual plan specifying economic actions in detail are being submitted for approval at certain dates. Before this approval, the economic organizations tend to hold back from even such actions as otherwise (for economic reasons) could or should be taken. Therefore they become overdue in managing their affairs. After the approval of the plan they tend to make up for lost time at a forced pace. For instance, import orders tend to get delayed while waiting for the approval of the plan, even when, at that time, more favourable conditions could be arrived at. In turn, after the approval, contracts are concluded with an undue haste connected, as a rule, with price biddings.

The economic control by supreme political bodies involves a set of other issues, too. Most politicians are not thoroughly acquainted with the problems, particularities and laws of economic life. It is only natural for them to believe that with the struggle for independence and the seizure of power they have accomplished the most difficult task, compared to which the starting of economic growth and flourish seems much easier. Their political achievements fill them with optimism, justified by the fact that the population has given proof of unity, political maturity and generosity. This optimism is useful in many respects, qualified leaders must believe in their nation and in their own abilities. This belief is doubtless a positive factor at the beginning of development, but rational action has to be based on the knowledge of reality rather than on the subjective state of mind of the leaders. In the atmosphere of exaggerated optimism the leaders are inclined to overestimate the power in their hands. It is, of course, difficult to tell what objective criteria could serve for judging the solidity of a political regime. There are, obviously, several such criteria but they tend to diverge according to whether the political, economic or military aspects come to the fore. A regime is firm in the political sense (particularly in home politics) when it is being actively supported



by the great majority of the population in solving its major national tasks. But even such a political force has to be subjected to a transformation process in order to become converted into energies needed for economic growth, and such a transformation requires much time, good leadership and sound organization.

### Political Power, Economic Power, Decision Mechanism

The concept and the extent of economic power are inseparable from the amount of resources at the disposal of the government. As it was said before, economic backwardness is caused, in the main, by the shortage of resources required for starting economic development. An economically underdeveloped country may possess vast potential energies and even a favourable political atmosphere for starting economic growth (both factors being very important), but it is necessarily weak in disposable resources. Under such circumstances it is a very complex and difficult task to start growth.

Exaggerated optimism at the beginning, the overestimation of disposable economic power and the particular way of thinking usual with government officials often combine to create an atmosphere of "voluntarism", that is, to believe that people can be made, by decrees and regulations, to act against their direct economic interests, or that economic targets can be set without taking account of the objective laws and processes of economy. In fact, the system of economic control is not a self-contained category, overriding the national economy; its objectives can be achieved only through the economic processes and factors it endeavours to start or influence.

It follows from all this that the transfer of central economic decisions into the competence of the supreme political bodies involves many a problem. We must stress, however, that in our age the centralization of economic control is an absolute necessity. To the arguments previously propounded in this respect, let us add here that in our days certain decisions can no longer be made rational at the national economic level if they are or may become irrational from the aspect of world economy.

In the above discussion our attempt has not been to confront the mechanism of centralized economic decisions taken by supreme political bodies with other systems of decision making; we have confined ourselves to examining the inner nature of the mechanism described. It is needless to dwell at length on the vast amount of irrationality, suffering and violence caused, during the last two centuries, by the economic mechanism based on independent entrepreneurial decisions.

The irrationality of this alternative, however, does not entitle us to neglect our tasks as regards investigation and gradual correction of the centralized system used by us. The centralization of economic decisions and their transfer to the leading political bodies has doubtlessly created a radically new situation in the history of human economic activity of many thousand years. This decisive change

obliges the workers of economic science to extend their investigations to the economic decision making of the supreme political bodies.

Attempts to satisfy this requirement are likely to meet, at the very outset, with the disapproval of all politicians and most economists. The politicians will be shocked at the thought that economists could interfere in the decision of political problems, whereas most economists will protest against extending the responsibilities of their discipline to political decisions. However, anybody who has carefully weighed the present situation and is reasonably responsive to the requirements of change will, independently of his or her discipline and vocation, recognize that there is no other alternative. Namely,

- a) if the most important economic decisions are made by political bodies,
- b) if these bodies are concerned with a social optimum rather than with an economic optimum in the abstract sense of the word, and
- c) if, accordingly, the political mechanism (comprising all three spheres of politics) by necessity imprints its marks, in both negative and positive sense, on economic decisions:

then the science of economics (political economy) is obliged to get more familiar with the decision-making mechanism of the political bodies, as well as to analyse and help their economic decisions. This requirement extends to several branches of the economic sciences, such as economic policy as a scientific discipline, the theory of information and decision, the science of programming on a national scale, that of operation research and so on.

Starting from the postulate of rational human action, scientific research has to contribute to the development of such a mechanism of decisions where only the decisions affecting the political system and power balance as a whole should remain in the hands of the political bodies. It is obvious that decisions regarding such questions will continue to be influenced even by the second and third sphere of politics; but this is inevitable.

It is, however, inexpedient to leave also the decisions regarding simple questions of production, or of its extension by investment, in the hands of the supreme political bodies. Namely, in this case the mechanism of decision (comprising all three spheres of politics, the endless political skirmishes within the strata holding the power, the struggles for personal positions, etc.) tends to get much more complicated than the decision itself. Without attempting to create new "laws", we may risk the statement that there is a correlation between the contents and the mechanism of a decision; relatively simple questions should be decided upon by applying a relatively simple mechanism. Otherwise, the contents of the decision will be influenced rather by the decision mechanism than by the economic problem to be solved.

The government has to find a way to control the economic decisions made in a decentralized way; it has to create an economic environment (consisting of incentives and constraints) that will orientate the activity of economic organizations in the directions wanted. Let us add that, in a country with vast open and latent labour surpluses, after the start of economic growth it will be anyway impossible

to centralize the control over every economic activity. Namely, the scarcity of resources renders impossible such a rapid development of state-owned enterprises as could absorb all labour surplus. And, if agriculture were able to increase its commodity production, the large-scale manufacturing industry could not develop rapidly enough (particularly at the beginning of the growth process) to be able to offer an equivalent amount of industrial products to the rural population. Both circumstances necessarily require the backing up of small industry, handicraft and cottage industry enabling them spontaneously to increase their production.

The transfer of simple economic decisions into the competence of the supreme political bodies would render the state-owned industry inelastic and handicapped as against the small industry. Obviously, decisions to be made on the supreme political level require much time and, with decisions failing, industry would be condemned to inactivity.

Thus, in the case of a central economic control, the scope of economic problems regarding which the right of decision will be reserved to the supreme political organs must be very carefully delimited.

In the following we must get acquainted with some concepts which will frequently recur in the further discussion, namely, the targets, resources and methods of economic policy.

### Targets and Means in Economic Policy

The various targets of economy derive from the essential nature and basic endeavours of a socio-economic system. The basic endeavours are aimed at long-term or final targets, also referred to from the angle of economic activity, as meta-economic targets. This term means that these targets cannot be derived from the present, everyday circuit of economic life. This is fairly obvious, since man is more than a simple *homo oeconomicus* and the great communities, nations and mankind as a whole strive at more than bare material welfare.

An instance of such meta-economic targets is, for the developing countries, the gradual realization of equality of all human beings. This requirement, contained in the great religions and philosophical systems of our species but mostly distorted in reality, means from the strictly economic angle (that is, disregarding its other requirements in the political and cultural spheres) that everybody has a right to work, that everybody should be able to live from his or her work, and that incomes should be distributed equitably.

From the conception of human equality it logically follows that every human being must be provided with equal opportunities freely to evolve his or her abilities. For this purpose, communities offering for everybody the type of education and work most suited for him or her are necessary. Evidently, the building up of such communities involves a set of long-term targets which cannot be achieved from one decade to another. The equitable distribution of goods, in itself, could not solve the question. The development level of an economy depends on the progress of productive forces rather than on distribution. If goods are scarce,

their equal distribution can attain no more than everybody's living under the minimum level that should be provided for everybody. For the developing countries this simple truth is particularly important because, first of all, they have got to master the vast gap separating them from the industrially advanced countries.

The whole set of long-term targets defines the social strategy of a community, i.e. the direction to be followed by its political leadership. The proclamation of the long-term targets is very important in the course of the political struggle fought to win over the masses. Their importance still increases in the decade following the seizure of power because

- the leaders must have these targets accepted even by those strata of the society which previously did not know or accept them,
- the awareness of their existence and of the planned gradual progress towards them will facilitate for the nation to put up with such less popular measures, difficulties and tensions as will necessarily occur.

The targets of social tactics or medium-term targets are always specific and have a dual character. They define the order of priority regarding the next major tasks of economic policy and, at the same time, each of them represents an intermediate station on the way towards some of the strategic, long-term targets.

Thus, for instance, human equality postulates, among other things, an abundance of goods offering, when equitably distributed, welfare for everybody. In order to attain this, the country's productive forces have to be developed up to the possible maximum. This involves the systematic increase of the national income and of its part invested into production, by finding the optimal solution for both; specific investment projects have to be realized, the vocational training and productivity of labour developed, the amount of consumer goods augmented, the economic equilibrium maintained and so on. Essentially, the tactical targets serve for the gradual creation of the conditions necessary for the realization of the strategic targets.

When confronting the targets of social strategy and tactics, some important facts have to be kept in mind:

- a) As a rule, the realization of strategical targets is much more difficult and time-absorbing than it is supposed to be. Before and for some time after the seizure of power, the politicians are inclined to overestimate their possibilities regarding the transformation of human minds and circumstances.
- b) The forces outside the internal core of political power (that is, the great majority of the nation) keep in evidence the progress of the nation by following the achievement or non-achievement of the specified tactical targets.
- c) The strategic targets themselves are changing with time. We cannot be sure of whether in a hundred years from now the criteria of human equality will remain the same as they are at present. Accordingly, also the conditions of attaining such transformed targets may change with time.
- d) The specific situation created during any tactical (medium-term) period will not vanish without leaving a trace. If, for instance, disequilibrium occurs in a given

period, and a set of restrictions has to be introduced in order to restore equilibrium at a lower level, all this will necessarily affect the tactical targets of the next period, because of the worse start and the loss in time. As a final result, even the possibility or at least the date of attaining some strategical targets will be affected by the failure of fulfilling medium-term plans.

All this shows the particular importance of feasible, actual economic results. Obviously, it is always necessary to set appropriate strategic targets, because these form the matrix of the political system and secure the continuity between the ever-changing flow of short-term tasks. In a way, they are the "fixed stars" (even though moving and changing, as are the fixed stars) orientating us in a world of problems, processes and complications. It is evident, however, that no result attained in a long-term period can be any better or worse than the aggregate of the results attained during the intervening short or medium periods.

It is even possible that contradictions or conflicts occur between the tactical and strategical targets. For instance the strategical target requires perfect equality based on the abundance of goods. In the meantime, however, such tactical targets as the rapid augmentation of national income, the supply with qualified labour, the transforming of production pattern etc. require, transitorily, the increase of differences between wages in order to strengthen incentives for qualified labour. This obvious contradiction, however, contributes to the creation of conditions necessary to achieve the strategical target.

Strategic targets as "fixed stars" are obviously necessary, but it would be a mistake to mistify them or to try to read from them what we have to do now. The endeavours of a given medium-term plan period always rest much more upon the results and circumstances of the past periods than upon the long-term targets. Many people believe that the targets of social strategy should serve as a basis for everyday activity, and consider the time between the seizure of power and the expected realization of the strategical targets as a transitional period. Let us note that it is exactly in the "transitional period" that the existential issues of every political system (and with them the realization of its strategic aims) will be decided upon.

The science of economic policy classifies the targets, resources and instruments. When following this tradition, we should like to diverge from the rigid classical schemes representing a static view of things and to avail ourselves of a dynamic conception.

To begin with, the economic targets are not correct or mistaken in themselves. They can be judged as correct or mistaken, as postulating or excluding each other, etc. only in relation to other targets, that is, to the set of targets representing the economic policy's national economic plan. Theoretically it is quite possible that targets, seemingly correct and justified in themselves, prove unreal and even harmful when inserted in a given system of targets. The same holds true of the resources and instruments, i.e. the factors influencing economic growth. It is possible that, according to a medium-term plan, the distribution of the disposable resources is in complete harmony with the targets to be realized. But most of the quantitative

plan estimates regarding resources are based on the assumption of the planners that the really available kinetic energies will transform a certain amount of potential energies over a certain time into kinetic ones. Now, if this transformation process takes more time than has been originally assumed; or that parts of the really available resources must be used up in order to offset an unexpected disequilibrium (for instance because crops are worse than expected, demand or prices on world market fall back, etc.), then the resources disposable for the realization of the plan targets will prove unsatisfactory.

When building up medium-term economic conceptions (national economic plans), most mistakes and errors are committed not by false estimates as to the amount of the resources actually at disposal, but by the overestimation of the effects expected from such energy transformation and the underestimation of the amount of time necessary for it, further, by failing to foresee the chain reactions that may be caused by transitory disturbances of equilibrium.

Finally, we have to note that a classification of targets and resources can be made on the basis of either exclusively economic, or of combined political and economic criteria. From a purely economic aspect, some targets may seem to harmonize with the whole of the plan whereas, seen from the political angle, they may be pregnant with disharmony or even conflict.

### Relationships between Economic Targets

After these introductory remarks we can classify the targets of economic policy as follows:

1. There are *targets postulating and covering one another*: such is the case when the change in the status of an aggregate economic phenomenon, as to its direction and order of magnitude, depends on the changes in the status of its major components. For instance, when a definite rate of growth in the national income is planned, the contributions coming from industry and agriculture must grow at such rates as to result in this average rate of growth. The proportion between the rates of growth of the industrial and agricultural contributions and that of the national income as a whole may vary by countries. Since in the economically advanced countries industry contributes the greatest part of the national income and represents the most "dynamic" branch of the national economy, it is almost a rule there that the industrial output grows more rapidly than the total income, while that of agriculture is slower. The situation is somewhat similar in most developing countries, though its causes are fundamentally different.<sup>3</sup> Here, industrial growth starts almost from nil, and the construction of every new plant substantially affects the total output which frequently shows spectacular rates of growth. In turn, where for the increase of hectare yields substantial investments, for the extension of cultivated area vast inputs of organization of work are needed, agriculture

<sup>3</sup> During the last decade instances of a higher growth rate in agriculture have also been observed.

grows much slower or, frequently, is stagnating. It is exactly in such a situation that the stagnation or slow progress of agriculture and the resulting insufficiency of domestic market will act as a brake on industrial expansion. Evidently, there are interdependences "postulating and covering one another" not only between the growth rate of the total income, on the one hand, and of the output of the two major branches, on the other, but also between industrial and agricultural production. These interdependences and their particular proportions change from country to country. However, some minimum growth rate of agriculture (with a view to the usually rapid increase of population, at least 4 or 5 per cent) should be secured if industrialization has to continue undisturbed.

2. There are *harmonic targets*: such is the case when the realization of one of them contributes to the attainment of the other. Such is the relationship between the change of economic structure and the training of labour, including the highly qualified experts. The change of economic structure consists, of course, of numerous processes and alternatives such as industrialization itself, later on also shifts in the relative weights of various industries. Similar pattern changes may come about in agriculture when the proportions of certain crop areas are modified, as a result of impulses coming from the market or of endeavours towards a more efficient and more differentiated crop pattern.

Evidently, every given economic structure involves a definite proportionality in the distribution of labour force. Here, however, qualification is decisive since for the introduction of every new industry or new agricultural crop a number of qualified experts is necessary. Thus new branches and new tasks involve the extension and transformation of the educational system.

In a centralized economy, the same political bodies have to discuss and decide both the questions of economic development and those of education and vocational training. Thus, at least in theory, it is possible for the reorganization of education and vocational training to get ahead of the final decisions regarding economic development. This is obviously necessary since the tasks of vocational training and, in particular, higher education require much longer time than do the economic processes in the narrower sense.

Independently of to what extent the above requirement (of the education getting ahead of economic development) is actually satisfied, it is evident that the transformation of economic structure and of education are harmonic targets complementing each other. The structural changes transform the requirements for labour force, while qualified labour, when in compliance with the economic requirements, is the very basis of structural change aimed at rationality and efficiency.

On the other hand, when viewed from the aspect of politics, these theoretically harmonic targets may lead towards serious conflicts.

a) Working people, as a rule, are reluctant to switch over to a new branch, particularly when this process is connected with cumbersome re-education.

b) If the switching-over is connected with a change of domicile, the problem is further complicated by additional requirements for housing and public utilities,

as well as by the inevitable changes in the mode of life, the disruption of family and tribal bonds, etc.

c) Structural changes may involve unemployment, if only transitional.

d) Workers and qualified people, trained in order to satisfy demand as it has been assumed under the original development conception, sometimes may find it difficult to get employed in their chosen branch, as a result of subsequent plan corrections and the changes in the labour demand of economic life.

The analysis of these political aspects seems essential because they show that targets, in themselves "harmonious", are sometimes approached with "disharmonious" methods. Thus it is not enough for the targets to be objectively harmonious; also the methods applied to attain them have to be chosen with due regard to the consequences in the whole sphere of society.

3. There are *relatively independent (autonomous) targets* in the sense that the realization of a given target does not interfere directly with that of another, since the resources utilized by them are of a different nature, i.e. practically cannot be substituted for each other.

In view of the complexity and interdependence of economic processes, such cases are not very frequent. We may however assume that, e.g. a big project of river control combined with irrigation works, on the one hand, and the construction of a contemporary, capital-intensive industrial plant, on the other, would be such targets. Namely, the first requires a vast amount of unskilled labour and relatively small capital, while for the second very little live labour but substantial capital (in the form of building material, imported machines and so on) is needed. Thus, the water project would employ such workers as could not be employed at the industrial construction, and its moderate requirements regarding capital goods do not interfere with the latter. Of course, when realized, both projects may have substantial effects on each other, since the first will contribute to increasing agricultural output and the purchasing power of the farming population, while the second will add to the supply of industrial goods and, through its workers, to the demand of marketed food.

It should be noted that the sphere of such independent, autonomous targets is constantly narrowing, one of the features of contemporary development being the increasing possibility of substitution between goods and development resources.

4. There are *contradictory targets*. Such a relation exists between two or more targets when the realization of one of them substantially interferes with that of the others, since it requires such a concentration of definite kinds of resources as makes it impossible to allocate a sufficient amount for other purposes. Such a disequilibrium tends to lead to situations disadvantageous or even dangerous to the national economy. The number of contradictory targets is high, and such contradictions must be solved by finding an "optimum" compromise. Of all such contradictions, the most important is the one existing between the requirements of accumulation and consumption, particularly severe in the case of the developing economies. In an economy poor in capital, the increase of consumption absorbs resources that should have been accumulated and employed as inductive



energies stimulating the growth process. And, in turn, the forced increase of accumulation brakes the growth of consumption, the low level of which is hindering systematic work (in particular industrial work). Decisions in this field of economic policy should then be made by finding such proportions as would permit consumption to grow at the rate that seems absolutely necessary, while not interfering with the growth of accumulation.

5. Finally, there are *targets mutually excluding one another*. Here, it is the dynamic aspects that has to be kept in mind. Namely, when two targets exclude each other as a result of their contents, that is, in a statical sense, this is easily revealed by simple logic. It is more difficult to take a stand when two or more targets do not formally contradict, and the impossibility of their coexistence is only revealed by an investigation of their mutual position within the economic circuit as a whole.

Let us assume, for instance, that the economic policy has set the target of raising the national income by an annual rate of 7 per cent with due regard to the maintenance of the equilibrium in the national economy. In such a decision there is no formal contradiction that could be detected at the first sight. Detailed preliminary accounting may show, however, that the two targets (to raise national income by 7 per cent and to preserve economic equilibrium) cannot be achieved at the same time since the first target would require, among other things, an amount of government spending not permitted within the frames of the given state budget, or an additional amount of imports that cannot be balanced by additional exports, and so on. In such cases the country's economic leadership must modify its original decision, either by cutting down the planned rate of growth of the national economy or else by facing (that is finding ways to avert) the consequences of economic disequilibrium, such as inflatory tendencies, the growth of foreign debts, etc. The most disastrous course for the government would be to impose on economic experts targets mutually excluding one another. Human beings may be influenced but the objective economic processes cannot be stopped by even the most appealing political argument.

### Relation of Means to Targets and to One Another

Let us now classify the methods by which the economic organizations and individuals or, more correctly said, the economic processes conducted or started by them may be influenced. The methods serving to influence economic processes and organizations (groups) or individuals are, in a sense, inseparable from one another since every social and economic process may ultimately be reduced to decisions and acts of individual human beings.

a) The methods used may be classified according to whether *their effects are qualitative or quantitative*. For instance, the nationalization of capitalist enterprises (owned by native or foreign capitalists) to accelerate economic growth is a measure having rather qualitative effects, whereas the effect of tax and price increases is quantitative, i.e. measurable at the rate of increase of budget incomes etc.

b) Some methods *comply with the fundamental principles of the existing socio-economic system while others are opposed to it*, the latter being applied as a result of a realistic compromise. An example for the first type is a measure for protecting a branch of domestic production; for the second, a tax concession granted to foreign capitalists.

c) From the aspect of economic control, we may differentiate between *direct and indirect measures*. Direct measures are aimed at changing an economic phenomenon. Thus, e.g. when an article is scarce and the existing capacities are insufficient to cover demand, the rise of its price will act directly on its demand; in turn, a price cut on some substituting article is an indirect measure aimed at deviating demand from the scarce article. Thus, an indirect measure is aimed at transforming the environment of a phenomenon rather than at influencing the phenomenon itself.

Thus instructions given to a state enterprise are part of the direct methods of economic guidance, while indirect methods are used when creating an economic environment (by prices, material incentives, etc.) eliciting reactions and behaviour in compliance with the intentions of the leadership.

d) Finally, we may classify measures according to whether they create *administrative constraint or leave an at least seemingly free choice of alternatives*. In the first case the government, when serving the public interest, disregards the will of the economic subjects. It may, for instance, prohibit the imports of certain goods in order to save foreign currency, or the sale and purchase of some agricultural products in order to lead them into the channels of government purchase. The weak point of measures creating administrative constraint is that they cannot liquidate the factors leading to the adverse phenomenon. For instance, the demand of scarce articles may switch over to the black market where prices are raised at the risk of the seller, and this contributes to a general price rise. The scarcity of imported goods leads partly to contrabande, but partly also to the extension of home production.

Although the administrative-coercive measures do not solve any economic problem, governments short of resources will always resort to them.

The measures permitting individual choice are invariably more popular, since economic organizations and consumers feel that they are acting on their own free choice. It is true, however, that in this case greater amounts of disposable resources are needed, and this is a serious drawback for developing countries where resources are scarce. Administrative methods are, as a rule, more admissible in underdeveloped economies. In the more advanced ones the methods permitting, at least seemingly, free choice are to be preferred.

It is to be stressed, however, that the targets, the methods and resources form a "dialectical unity" in the course of the growth process. This is evident because:

a) the specific targets of economic development are defined by the nature of the available resources and by the proportions between their disposable quantities; in other words, such targets will be preferred as would permit the optimal use of the existing resources;

b) the categories of targets and resources are intervoven because what has been a target of yesterday will be, after its realization, a resource of further development. For instance, an investment project is a target but, when accomplished, the productive capacity of the new plant adds to the resources of the national economy, contributes to the increase of production, accumulation and consumption.

We may classify the targets according to their scope. There are targets that, when attained, will affect the whole population of the country, whereas others are the concern of some strata or classes. Of these "partial" targets, we have to emphasize those affecting the "pillars of power", the leading layer of the nation.

### Leading Layers and Economic Stimulation

When starting economic growth the resources of development are invariably scarce. Hence, not only development itself is limited but also the scope of incentives stimulating the activity of those directly or indirectly concerned with economic development. In other words, not only the producers' goods are scarce but also the articles of consumption, and the government has to decide upon the distribution of the latter as well.

It is doubtless that in the years following the seizure of power the new leading layer has to be better provided for, in one way or another, than the rest of the nation. This is not only justified as a compensation of past merits but also necessary to strengthen and consolidate the new power. This problem is solved in different ways by the various governments, according to their general political line, long-term targets and actual situation. The existing alternatives, however, can be reduced to various combinations of two possible courses, namely,

a) endeavours to maintain the spirit of puritanism and unselfishness developed in the period of the struggle for independence, and to compensate the leading layer for the lack of worldly goods by the feeling of power;

b) to reserve a considerable part of the scarce resources for the leading layer.

As it has been said, practice mostly combines these two courses, with the preponderance of one of them.

Without doubt, both courses are associated with many a danger. (Let us, however, note that vacillation in this respect is evidently much more dangerous than the choice of any of the two alternatives, within reasonable and moderate limits keeping in mind the necessity of winning over the whole population.)

In the case of the first alternative, when the leaders seek compensation in the feeling of power, the main danger consists in their getting obsessed by an exaggerated drive for activity. This state of mind often leads to arbitrary actions, voluntaristic conceptions, despotism and, ultimately, to political tension that otherwise could have been avoided. In such a situation the new leadership, in spite of its puritanism and moral intactness, will drift away from the masses which will fail to see reason in the flow of measures concerning organization, reorganization and possibly the occasional return to previous organizational forms.

The second alternative secures economic privileges for the new leadership, whose standard of living will then be in a sharp contrast to the general situation, in which patience and sacrifices are being required from the masses. Thus, the leading layer will soon find itself opposed to the masses of population, losing the moral authority achieved during the struggle for independence.

In spite of these dangers, some concessions to the new layer of leaders must inevitably be made in the period following the seizure of power. It is, however, to be kept in mind that when such privileges rest exclusively on past merits rather than on present work and performance, they necessarily lead to dissatisfaction, particularly in such other layers and individuals as are taking over more and more responsibility for the construction of the new economic system. Thus, the staff of leadership, the members of which feel themselves entitled to privileges, is in constant transformation; members of the old staff no longer able to satisfy the new requirements are gradually falling out, whereas others with more recent merits are being adopted.

When these two processes take a normal course, the position of the government in the public opinion will be consolidated, and in the course of time the state power will be able to serve, and to win over, the nation as a whole. But, with political responsibility being gradually transferred from a small layer of the leadership to the broad masses, some of the former leaders who were not able to utilize their initial advantage for consolidating their positions will begin to get dissatisfied and to speak of the ingratitude of the government. In order to compensate for this, the government's new policy should win new adherents to it. Compensation, however, is not a question of simple numbers. Apart from elections or plebiscites, the political weight of individuals is very different according to their abilities and talents, as well as their influence and the positions they are taking in, which permit them to advise others or make creditable promises. All this has to be accounted for when replacing part of the old staff with newcomers.

In mature and politically stable societies the aspects of power assert themselves in economic life only in an indirect, institutional way, whereas in the developing countries where the balance of power is in constant transformation, fundamental economic questions are subject to open, personal struggles for power. Under such conditions, it is very important to synchronize the changes in the power balance and the rounds in the struggle relating to economic questions.

## CHAPTER 4

### Correlated Shifts of Political Power Factors during Growth

In the foregoing we have spoken of political power and changing regimes without any reference to their nature and structure. This is, however, necessary to a certain extent partly because the character of a regime is decisive for its conceptions on economic growth, and partly because (as it has been mentioned before) economic growth itself substantially reacts to the social and political power relations.

Obviously, in this monograph we cannot undertake to analyse the various political regimes, widely differing in their nature, intentions, orientations and their ultimate background, that is, the historically developed class relations. Investigations conducted on the spot, that is, separately in every country for several years, would be necessary to reveal the historical development of all strata and classes with regard to their particularities and functions. Moreover, it is evident that we are primarily concerned with the transformation of the now existing strata and classes in the course of economic development, rather than with what they have inherited from the past. Finally, we have to investigate the scope and limits of rational political action, and these cannot be identified mechanically with the secular laws and regularities governing the movement of classes. Rational political action is governed by laws of its own though, evidently, a political action in keeping with the expectable class movements is likely to be more appropriate and efficient than one opposed to those secular laws. In other words, political action harmonizing with the fundamental interests and anticipated movements of the classes may count on cumulated effects, whereas an action at variance with these is likely to elicit reactions which, in turn, may annihilate the eventual results.

The power relations between the various classes and strata or between the various political organizations (parties), as well as the part they have to play in the life of the nation are inseparable from the extent to which they are able to solve the nation's fundamental questions. The problem of economic growth acts as a catalyzer in this respect, too; the existing and changing political forces form groups according to their attitudes towards it. This is wholly understandable since the nation will be best served by the one political organization or group which proves able to introduce contemporary tendencies into the national life by making them acceptable to the great majority of the population.

No political movement of a retrograde character will ever be able to do so, partly for lack of understanding of contemporary tendencies, and partly because the introduction of these would interfere with the interests of its followers. Evidently,

a progressive movement has more understanding for these tendencies, and their assertion conforms, or at least is not opposed to, its members' interests. No progressive movement, however, is entitled to claim a monopoly for introducing contemporary tendencies, and the initiative is likely to slip from the hands of those who are unable to follow the rapid development of progressive world tendencies and rigidly stick to a previously formed attitude. Moreover, even a progressive political movement may commit, when introducing modern tendencies, many concrete mistakes and errors. As a result, the new conception may perhaps gain some ground but the progressive movement introducing it will become unpopular to the extent of their exponents losing power.

If the problem of economic growth is indeed the catalyzer of political groupings and actions, then the analysis of the situation in the individual countries must extend not only to the attitude of the regime but also to that of the forces acting against it. The economic situation is at any time the resultant of the combined forces of action and reaction. When a decision of economic policy is correct, it not only strengthens the regime but also weakens the forces of reaction, and vice versa.

In this context, it has to be stressed again that in judging a single political act, only part of the population is led by some previous alignment. The rest, in itself a substantial mass, will form an opinion depending on the factual or alleged contents of every single measure. "Previous alignment" is understood to mean not only the adherence to some political organization, the opinion of which obliges or at least influences its members, but also the case when the individual has, irrespective of the case in question, a firm preconception regarding the forces *opposing* it. People with a political alignment represent, within society, the centres of crystallization of opinions and counter-opinions.

Of course, a long-lived government is better known by the population, and people are more likely to recognize the coherent and logical background behind single, isolated measures. This does not mean an absolute alignment in the political sense. Such people will reserve their freedom of action but they are able to consider the various measures in a more comprehensive way, in the wider context of past experience and future expectations.

Political confidence cannot be won once for all, it has to be fought for from day to day. Even the most popular political movements will get undermined by bad policy, inappropriate and unsystematic economic measures. Moreover, the holding back of necessary measures, indecision and lack of understanding for new phenomena also discredit a political movement.

### Types of Political Power Factors Evolved in Developing Countries

The types of political regimes (and of the forces opposed to them) developed so far in the countries reviewed may be characterized as follows.

*Contention for power between the landlords and the town bourgeoisie* with the army playing the part of an arbitrator. Such regimes are in power in most Latin-

American countries. Feudalism as a political and economic factor has still a great influence on the power relations within the country. National bourgeoisie is not yet strong enough (mostly owing to the prevalence of foreign capital) to bring about a change in the direction of bourgeois democracy. It would be able to conquer power only at the price of co-operating with the working class but, as a rule, recoils from this possibility. In the cases where such attempts are made, the army promptly interferes to overthrow such a "leftist" regime.

The type of political regime here examined is unfavourable to economic growth. It has to be kept in mind, however, that most Latin-American countries dispose of vast potential energies, their industrialization became intensive as early as between the two world wars and their "infrastructures" are much better developed than those of the developing countries in Africa and Asia. All this results in their achieving a certain, however modest, rate of economic growth.

As for the landlords, they are not able to solve the problems of agricultural production so vital for these countries. On the contrary, the existence of the large estates hinders the formation of such relatively well-off strata of land population as would represent a substantial market for industrial products. In such circumstances, national industry (handicapped also by the competition of foreign capital) cannot develop at the rate that would be necessary for mobilizing the rest of the national economy.

In these countries, only a government embodying consistent, progressive conceptions would be able substantially to accelerate economic growth. But such a government would have to face serious dangers in domestic as well as foreign politics. Namely the USA as the leading power of the American continent is objectively (that is, through the investments made by US corporations) interested in the maintenance of the existing conditions. Accordingly, the US Administration invariably exerts an economic pressure on the Latin-American governments in favour of the reactionary forces prevailing in these countries.

It follows from these considerations that a substantial acceleration of economic growth would be possible only if:

- a) the Latin-American political movements enjoying the support of large masses integrated into a close federation, and came to power in several countries at the same time;
- b) the state of international political and economic power relations were favourable to the gradual liquidation of Latin America's economic dependency;
- c) the consequences of the demographic revolution were to asserted themselves gradually also on the American continent.<sup>1</sup>

On the other hand, if the problems of economic growth mostly affecting the masses continue to remain unsolved and governments rest satisfied with half-solutions, then the progressive movements (and with them a substantial part of the

<sup>1</sup> Namely, in the year of 2000 Latin America's population will be twice as much as that of the USA.

masses) become increasingly radicalized. And this means that the vital questions of these nations will attain their solution without the co-operation of the bourgeoisie.

### Progressive Political Regimes

National democratic regimes under the leadership of progressive, anticolonialist forces, having chosen what is referred to as the non-capitalist (or, more correctly, state-capitalist) way of development. In these countries, no industrial or commercial bourgeoisie has yet developed, and in the villages primeval economic and property relations are still in existence. The progressive forces (parties, movements), endeavour to secure for the government the role of organizer in all activities connected with starting economic growth. This task of the government is very difficult because it has to cross certain endeavours of foreign capital, and this in a period when the means for launching economic growth are scarce, and the majority of the population are still unacquainted with the problems and requirements involved by development.

These regimes have, as a rule, conquered power with a revolutionary impetus and, in order to prevent their isolation, pursue a very active foreign policy. Evidently, every revolutionary movement has interests and ambitions extending over its own country's frontiers. Moreover, active foreign policy tends to increase the international authority and esteem of the country. The scope of such activity, however, must be delimited with utmost care because, in this period, it often occurs that the extent of international activity nurtured by revolutionary dynamics becomes disproportional to the real power of the country. The extent of the latter is defined by the economic resources, development potentialities, population, defense capacities, etc. The spiritual expansivity inherent in revolutionary development is, of course, in itself a great potential energy, influencing and stimulating other peoples to activity but it cannot change the power relations defined by the above factors. Moreover, a disproportional international activity, by absorbing vast intellectual and material forces, may distract the leadership's attention from the problems of domestic development. And this may be very dangerous since the fundamental problem continues to consist in starting economic growth.

In a country where power is in the hands of the progressive forces, responsibility before public opinion for the starting and directing of economic growth falls on them. True, they have to face very adverse circumstances, including the heritage of the former colonial system. This, however, does not lessen the responsibility of the government in power; on the contrary, it requires even greater efforts. If the progress of economic growth is unsatisfactory, political tiredness, indifference and disillusion will seize the masses. And at this moment also the combustible of the active foreign policy, the spiritual expansivity of revolutionary ardour will be exhausted.

Under such circumstances there is the danger of new forces, backed by foreign support and promises, entering the political stage, exploiting the political tiredness, referring to the unsolved economic problems. These new political factors are repre-



sented, as a rule, not by the outspoken opposition or by former political leaders in emigration, but by the army.

The influence of the army on politics is, in many countries, positive, as will be explained later. Military leaders are not necessarily more conservative than the leaders of political parties. Still, their role in disrupting the unity of the national democratic forces is in most cases a negative feature in the given political situation.

Moreover, in contrast to the political parties, the feeling of revolutionary solidarity lacks in the army. Hence, after the seizure of power, it is often subject to tendencies of isolation.

Again we must stress, however, that the progressive forces have the greatest chances of starting and accelerating economic growth. Progressive governments well exploiting this possibility may continue to enjoy the support of the masses.

In most national democracies the one-party system is prevailing. The parties formed amidst the struggle for independence get united in a national organization, including the constructive elements of the former opposition. The one-party system rests partly on the less differentiated state of society, and partly on the requirement of a strong, stable government. Only such a government is able to solve the complicated problems of economic growth. Unstable, short-lived governments never dare face difficult tasks but shift the burden to their successors. In order to start or accelerate economic growth, many such measures have to be taken as require initial sacrifices from the population (that is, they are necessarily unpopular), while their favourable consequences are felt much later. In general (i.e. not only in the developing countries) only stable and long-lived governments are inclined to introduce such measures.

The absence of a formal opposition, however, does not mean that the large masses unequivocally approve the measures taken by the government. If it is unable to solve the fundamental economic problems, an opposition will form in due time (even if not in the shape of another political party), and will embrace not only those who were from the beginning opposed to the regime. It will extend to many who yesterday were the government's adherents and supporters. Thus, even under the one-party system, it still remains the vital question of the regime whether it is capable of solving the fundamental national tasks ahead. If the progressive forces in power cannot master these tasks, sooner or later new power factors will enter on the scene and take over the leadership.

The one-party system is not an aim in itself, only an instrument to secure the conditions for scientifically planned, long-term economic and political actions. The guarantees of the stability and existence of a regime consist not in the liquidation or merger of some formal opposition but invariably in adequate political and economic actions serving with foresight the interests of the nation. Failing these, the forces of opposition will rally in the party itself, in the army and in public opinion; this process cannot be prevented by any administrative measure.

National democracies are, as a rule, led by the "intelligentsia". This is natural because the working class is small in number and the peasantry is more or less an amorphous mass.

## Governments Endeavouring to Develop Capitalism

The governments of some developing countries adhere to the conception that the basic condition for accelerating economic growth is the appearance and rapid enrichment of a *new layer of entrepreneurs*. Such governments take energetic steps to eliminate the obstacles from the way of capitalist development. They try to liquidate the shortage of capital, the main bottleneck of development, by importing capital. Therefore they encourage the direct investments by foreign capitalists and the co-operation of domestic and foreign entrepreneurs. Moreover, since domestic accumulation depends, in this case, mainly on the profit rate of the entrepreneurs, high profits are tolerated or even thought desirable. Under such conditions, however, domestic capital tends to prefer investments in the foreign trade and the money market, since these are the branches in which the circuit of capital is the shortest and, accordingly, profits are the highest.

Governments acting on this line are likely to receive substantial assistance from abroad, that is from the leading neo-colonialist powers. They may be able to raise important foreign credits and even to receive some direct aid in the form of financial contribution to the state budget, secure the co-operation of foreign experts at favourable conditions, the foreign-sponsored reorganization of education, etc. Moreover, the neo-colonialist powers often encourage their more enterprising capitalists to co-operate with native capitalists and to cede them part of the profits.

When evaluating this type of development, we must continue to keep in mind that here, too, the political line is never stable, and political changes have always to be reckoned with. On the other hand, in the endeavours and activities of these political systems many such features can be detected as are part of the progressive national democratic regimes. Capital is imported in the national democratic countries, too, and these equally encourage domestic capital formation. Thus, differences between these two categories lie much less in the concrete facts than rather in the basic conception and in the proportions of the various processes.

The primary aim of a national democratic government is to create and strengthen a "national" economy. Therefore, also capital imports must serve this conception. Hence, as a rule, offers regarding direct investment by foreign capitalists will not be accepted; but foreign credits granted at favourable conditions are welcome. Also the strengthening of the native capitalist entrepreneurs is considered necessary for economic growth; but only of such capitalists as will diminish, by their productive or marketing activity, the country's dependence on foreign economies. Now the capitalists conducting foreign trade or banking operations are necessarily dependent on foreign entrepreneurs, and thus their interests substantially differ from those of the capitalists concerned with domestic production or marketing and, accordingly, with the extension of the home market. This latter category of capitalists is willing to co-operate with the government in developing the domestic economy, whereas those engaged in foreign trade or banking are likely to serve foreign interests.

When capital imports serve, instead of consolidating national economy, the interests of foreign corporations, and the domestic capital prefers investments in foreign trade or banking rather than in productive branches at home then the encouraging of direct foreign investments and of the accumulation of inland capital will lead to unfavourable consequences. Namely, in this case the country's participation in the international division of labour will continue under adverse circumstances. Perhaps the prices attained on the world market become somewhat higher, but the country's economic dependence is likely to grow instead of being reduced.

In all countries endeavouring to accelerate economic growth there is, in a sense, a "state of emergency". Under such conditions the concrete actions taken in different countries by individuals, groups or by the state, however different their motives and conceptions may be, will show many similarities. Nevertheless the longer the perspective of a concrete decision, the more the differences in economic conception will assert themselves. The nature and causes of these differences can be revealed by any attentive observer. But it should be stressed again that, at present, the differences exist mainly regarding the intentions; and intentions by themselves are not enough to bring about stable socio-economic situations. In addition, in most developing countries, changes in the political system are always likely to occur.

In the long run it becomes everywhere evident that a national bourgeoisie bound by its interests, to foreign capital (because of being concerned mainly with foreign trade, transport or banking) may perhaps acquire wealth rapidly but will not contribute to the development of the national economy. The European bourgeoisie of the 19th century had in mind only the increase of its own wealth; but at the same time involuntarily contributed to the development of the domestic national economy. Similarly, such capitalists of the developing countries as are engaged in domestic production also have in mind solely their profits; but they can increase profits only by ousting foreign goods with their home products. Hence, their interests go hand in hand with those of the national economic development, and they willingly contribute to it. When they are loyal to the government in power, their interests can be brought closer to those of the national economy. On the other hand, the part of the national bourgeoisie which is bound to the interests of foreign capital cannot fulfil a historic function in their country's social and economic development, since they find themselves more and more opposed to the national interests and the requirements of economic growth.

The large masses, however, instinctively recognize national interests, urge economic growth and go into opposition against any government supporting a foreign-oriented national bourgeoisie because under such conditions

- the fundamental problems of economic growth remain unsolved, or are solved against the national interests;
- the dependence on foreign economies increases instead of diminishing;
- the gulf between the living standard of the new layer of capitalists and the misery of the masses increases.

Political struggles provoked by these factors are more likely to develop outside the parliament than within it. The workers will form trade unions for defending their interests, and such organizations tend to increase their strength and influence.

Also the national intelligentsia (pedagogues, physicians, artists, etc.) will be upset by the rapid enriching of capitalists and by the opportunist foreign policy of the government. Under such conditions, the government has to take, from time to time, some "progressive" steps and to launch anti-imperialist slogans.

It is doubtless that under a regime of this type the long-term factors act in favour of the progressive forces. These are likely to gain ground, whereas the popularity of the government will dwindle from day to day.

However, since the political forces opposed to the government are not represented in parliament, the final solution cannot be attained on parliamentary lines. The more so that, as a rule, these parliaments are led by territorial and tribal conceptions rather than by the fundamental requirements of national and social development.

As to the further destiny of the regime, the following alternatives can be thought of:

a) the weight of the progressive forces in public life (and also in parliament) increases, involving a more "leftist" orientation of the government both in conceptions and in the choice of leading personalities;

b) the regime will be completely overthrown and the progressive forces seize power;

c) both of these processes can be either prevented or accelerated by the army, as the case may be.

It is difficult exactly to anticipate the army's attitude but, in the countries under this type of government, it is more likely that its intervention will be of a "preventive" nature, i.e. aimed at preventing the total collapse of the regime and the seizing of power by the progressive forces. This assumption is justified also because in most cases the army's chief advisers and experts as well as its equipment and stocks are being supplied by some of the neo-colonialist powers.

It follows that the progressive forces have to establish a national programme (conception) with due regard to the interest of all strata of the population if they intend to strengthen their position against a weakening government. Moreover, when planning the rate of their progress, they have to reckon not only with the existing power relations but also with an eventual intervention of the army against them. In such cases it is more practical to conclude a compromise with the weakening government, because an intervention by the army would endanger all the achievements already attained. True, the army in possession of power is not likely to solve any of the nation's vital problems and, therefore, sooner or later, the progressive forces will again have a chance of increasing their influence. But at that time they would have to begin everything from the beginning, since military dictatorships will have silenced, with more or less brutality, most of the cadres representing the core of the political movements, and prevented the training of new ones. Moreover, under such circumstances, the interest in political matters of the masses is likely to fall.

## Social Transformation by Parliamentary Methods

In political systems endeavouring peacefully to achieve a comprehensive social transformation and economic growth, the government

- enters into a close co-operation with the national bourgeoisie;
- seeks to create for itself a mass basis in the rural population which has relatively progressive opinions on social questions but is, as a rule, conservative in ideological matters;
- tries to achieve a land reform without applying force against the class of land-owners;
- regards the political and professional organization of the workers as an organic part of the regime;

— adheres, in foreign policy, to the principles of positive neutrality. (Let us add that this attitude in foreign policy is an organic part of peaceful transition since the adherence to any of the military blocs would upset the internal political equilibrium right away and would lead to serious social tensions.)

The endeavours aimed at a peaceful transition are expressed also by the presence, in parliament, of several political parties where the forces of consistent leftism have a substantial role. The government relies on the forces of the centre; leftists severely criticize some of its measures while they are supporting it in some other fields. At the same time, there is also a rightist opposition, some members of which are ideologically bound to conservatism while others represent the vague extremist tendencies born from economic distress. (This statement seems perhaps surprising. But at the time of great social tensions and transformations, it is only the politically educated layers that turn to left without hesitation; part of the backward masses will orientate towards the extreme right.)

Under such circumstances the government has a real need for a leftist opposition, not only as a counterweight but also as an initiative force. In turn, the left opposition does not wish the government to weaken suddenly and excessively because in this case the greater part of the masses leaving the centre would switch to the right (where no previous political education is necessary).

In the political bodies, also the former ruling classes find representation, partly in the governing party (aiming at a broad base and, accordingly, endeavouring to span large gaps of interests) and partly in the opposition parties of the extreme right. As a rule, the more liberal-minded members of the former ruling classes will sit in the governing party, the more dull-witted in the opposition.

The principle of peaceful transformation influences, moreover, the choice of the appointed time, contents and scope of the reforms. This choice is made in such a way that the implementation of the reforms should meet with but moderate resistance. But exactly this character of theirs make the reforms the object of strong criticism from the left because of their character of compromise and from the right because of their violating the privileges of the former ruling classes.

Under the conditions existing in this group of countries, this method of progress can hardly be avoided. Evidently, the former ruling classes still have a sub-

stantial influence on the masses, particularly in the more backward regions, and they are able to sway the public against radical reforms. And in countries suffering from social tensions, nationality and language problems, any explosion of emotions and mass exasperation is always dangerous. Thus, their governments cannot be blamed for seeking solutions of compromise, provided that the mood of the parliament is more or less reflecting the mood of the nation as a whole.

Unfortunately, parliamentary mechanism has its specific rules, one of them being that it does not and cannot express the nation's opinion regarding a single reform measure. This mechanism, as is shown by certain European parliaments, tends to prove stronger than the objectives they should serve. Thus, the political debates on individual reform projects often turn into an endless bargaining where the government is likely to give up more of the radical features of the reform than what would be necessary judging from the political opinion of the nation's majority. And such a line is not justified in a society calling for reforms in both the objective and the subjective sense.

It follows that the governments of such countries should, above all, endeavour to improve the political machinery of parliament. Without this, in spite of the "satisfactory" compromises attained by them in parliament, they will lose the real support of the masses. Moreover, if people do not see decisive and consistent governmental action for progress, they tend to fall back into indifference and apathy, and then it is very difficult to reactivate them into the social dynamism indispensable for economic growth.

In view of the danger that the parliament, caught in the net of its own mechanism, should lose contact with the nation, it is desirable for the government to include in its work such institutions as maintain everyday contact with people: trade unions, peasants' organizations and other democratic bodies.

### The Army as a Leading Social Institution

The "institutionalist" way of thinking is inclined to identify the historical necessities of a society with the institutions through which the necessary development can be started and introduced into the blood circuit of the nation. In contrast, we propose to start from the assumption that the given situation of the society and economy, as well as the progress of their historical development necessarily involve the introduction of new elements into the social and economic life. These new factors act as incentives, change the inherited conditions within society and the previously developed order of economic circulations; in other words, they start economic growth. The discussion, in this economic monograph, of the army's role becomes inevitable exactly because we must review all institutions which, under the conditions of the developing countries, are capable or may be made capable to start the process of economic growth. From what we have said before it is evident that the army is not the only institution capable to undertake this mission. And a more detailed analysis will also show that regimes based or relying

on the army can act both in positive and negative directions from the point of view of starting and developing the new processes.

By what way or ways can new processes and ideas be introduced into the traditionally set order of national life? From the beginning of the 19th century, the political parties and movements have been the chief channels, whereas formerly, before the laicization of the European way of thinking, new processes and ideas penetrated into human thought and action mainly through the vehicle of religious reform movements.

It is evident from the history of humanity that political parties have not and cannot have a monopoly for introducing new ideas, since the necessity of the latter rests on the objective conditions of a given society and the world as a whole. When the political parties do not recognize the necessity of new processes or are unable to start them, other forces must necessarily enter into the flow of action.

This is exactly what seems to have happened in countries where regimes rely on the army. This situation must have resulted from the combination of different factors:

1. In some countries political independence had to be won in a long armed struggle. In such wars of independence, the army came under the influence of politics, since its members were recruited not by obligatory enlistment; they became soldiers voluntarily, led by their own political conviction and moral standards. Then, the final victory of the war of independence greatly increased the esteem of the army in the eyes of the nation. In such a situation, the army and the political movement tend to become strongly intertwined, and this more or less excludes the possibility of a switch-over to, say, a parliamentary system with several parties. It is but natural that the layer which took more risk and made more sacrifice than any other should want to keep the power.

Thus, the process is wholly understandable. On the other hand, we must keep in mind that after the starting of economic growth, that is, in the presence of a new catalyzer within society, it is no longer possible to form judgements on individuals exclusively on the ground of past merits.

2. There are countries where no lasting wars of independence have been fought but the totality of existing circumstances has made the army the centre of national rejuvenation. Such circumstances may have been:

- a) the discontent felt by the masses and by the nationalist intelligentsia against governments serving the imperialist powers;

- b) the inability of the native bourgeoisie (because of its dependence on foreign capital) to solve the nation's great task, to wit, start economic growth, and the instability of the central power resulting therefrom;

- c) the backwardness of social and economic conditions which hinders the radical political forces in influencing the totality of the nation;

- d) the traditional (mainly religious) way of thinking of the masses which prevents them from adopting "clean" political solutions, for instance, the separation of church and state, etc.;

e) the progressive and the conservative political forces are unable to co-operate, their conflict threatens with civil war or at least with the coming about of such political tension as could hinder economic development.

Let us now examine what particular features seem to make the army able to take in the key position, and to utilize it to the advantage of national progress?

a) From this point of view, it is very important that, through the army, contemporary principles of technology and organization penetrate into the society. Modern warfare is being increasingly mechanized. Therefore, most of the officers acquire a technical education, the level of which in many respects outmatches such knowledge accessible to other educated layers (of course, with the exception of engineers, but their number and percentage within the national intelligentsia are yet very low). Moreover, it is evident that the use of modern weapons also requires the knowledge and application of contemporary organizational principles.

b) In many developing countries the army has become able to repel the open interventions of the colonial powers deeply violating the self-respect of the nation. The objective conditions of this ability could and can be created where the purchase of military equipment, materials and fuel, as well as the employing of foreign experts cease to be conducted in the spirit of one-sided dependence.

c) The army unites people coming from every layer of the nation and representing every shade of political opinion. Hence, it is not and cannot be homogeneous from the political point of view. Its heterogeneous structure—reflecting more or less the structure of the whole nation—enables it to soften political controversies or to act as an arbitrator between the extremes.

The army's regime is acceptable for the national bourgeoisie; the more so because most of its officers originate from this layer. The groups thinking in traditional (mostly religious) categories can acquiesce in it, the army being also a traditional institution. Even the realistically thinking radical groups can agree with it up to a certain limit. Namely, they know that a direct seizure of power by them (if it were possible under certain specific conditions) would activate such substantial counter-forces (religious groups and most of the bourgeoisie and officers) as could presently overthrow the new power.

In such a historical situation the traditionalist groups are no longer strong enough to keep the power, and the new, radical groups are not yet strong enough to seize it, that is to influence the totality of the nation, to make their conception adopted. In this "political vacuum" the army has a large field of action in the interest of national progress.

3. Finally, it is also imaginable that the army goes into action not because it is a relatively self-contained political power factor but simply because it has to do so under the circumstances of political disequilibrium or exasperated ideological controversy. In this case, its role depends on whose interest the intervention is serving. When it serves the defense of the traditionalist political or religious groups against the progressive forces, then the situation is reminiscent of Latin America. But even in this case, a "limited intervention" is imaginable, the aim of which is



solely to reconstitute political equilibrium or, to use a stronger expression, to avoid civil war.

However limited the aims of an intervention may be, it still gives the army the opportunity to start on the way toward becoming an independent political force. The more so because the traditionalist groups have just proved to be unable to lead the political life of the nation and to be a passive rather than an active political force. (An exception to this rule will be, for a certain time, such monarchies where an "enlightened" ruler, that is, one having a larger sphere of vision than that of the traditionalists, endeavours personally to introduce more contemporary political and economic institutions.) Consequently, the army may play a substantial role not only in reconstituting equilibrium but also in determining the future directions for political and economic development.

It follows partly from the composition of the army and partly from the general political situation that these regimes suffer under severe internal contradictions. The most decisive of these are:

a) The contradictions following from the heterogeneous social origin and age structure of the officers. The greater part of them come from the former ruling class of landowners or from the bourgeoisie, a smaller part, from the people. (Namely, in some Asiatic countries the aristocracy—unlike in Europe—despised the military profession and therefore even people of lower origin could get into the staff.) The age structure—as it is natural in the army—fairly corresponds to that of the ranks: the officers having higher ranks are generally more aged and more conservative than their subalterns who, being younger, are more inclined to radicalism. This does not mean that the younger officers stand necessarily nearer to the leftist political movements, only that they represent the more radical variations of the political conception accepted by the officers as a whole.

b) Evidently, the "political polarization", that is, the extreme tension between traditionalists and radicals as well as between the relatively better-off layers and the millions of have-nots, is present also in the officers and the army as a whole. Therefore the differences and controversies within the commissioned personnel may, from time to time, become critical or even explode, especially in periods of extreme political tensions, in the form of minor military rebellions, of switching-over of commandants, etc.

c) Finally, the leading role of the army may result in a privileged position of the officers in relation to the rest of educated layers. This can cause a certain tension, with the result that some categories of experts who are very important for starting economic growth will work at half-steam.

### Can the Army Play a Positive Part in Economic Growth?

A political regime relying upon the army as the leading institution and as the main organizing power can only fulfil its functions and consolidate for a relatively longer period if the army is able

- to win over the decisive majority of the educated layers of the nation—especially the economic experts—and to induce them to improve the leadership of the state and economy;
- to influence the activity of the democratic organizations in order to ensure the support of the masses and to activate them for the targets of economic growth;
- to ward off extreme tensions through its relations to the traditionalist (religious etc.) forces.

An army able to do all this is by far more than the armed force of the nation and is no longer a “de-politicized” body in the sense of the West-European armies. Here, the frames of an old institution are partly filled by new content; such an army undertakes functions that, in other countries and under different conditions, belong to the sphere of the political parties.

When the leadership of the army is, in one form or another, identical with the leadership of the state, this leadership must use substantially different methods when dealing with politics, economics or cultural matters from those used within the army. It must realize the objective power relations, learn the particular rules of economic life, win the sympathy of the masses, and apply political methods and means against its political adversaries. On the other hand, within the armed forces it has to maintain the discipline indispensable for every army. Evidently, it is not easy to satisfy all these different requirements at the same time. Therefore, after consolidation, it is desirable to separate the leadership of the army from the leadership of the state as a whole, in the same way as the leadership of the governing party is, as a rule, separated from that of the state.

In this case, the army has to be led, evidently, by such persons who enjoy the full confidence of the head of the state. Notwithstanding, this situation is not without risks for the head of the state, since another person is entitled to give direct orders to the army. But this risk is counterbalanced by the advantage of the greater sympathy that the head of the state, when freed from the direct tasks of the Chief Commander, might win for himself among the population, including the national intelligentsia. On the other hand, certain frictions may occur because in many questions the head of the state will be no longer led by the exclusive interests of the army as the centre of power. This change is likely to hurt some narrow-minded officers who fail to see things in a broader national perspective.

The nature of the conflicts between the leadership of the state and part of the officers is closely related to the contradictions which are likely to appear in every leading layer in its relation to the nation.

Namely, in every leading layer there are individuals concerned mainly with the maintenance of their own privileged position, whereas others are inclined to make substantial concessions to the rest of the nation in the interest of political consolidation.

When, however, the leadership of the state or the army (or both) has little confidence in the educated layers of the nation, it must try other solutions. The situation may become still worse when the army is not able to contact the masses because the democratic mass organizations do not want to co-operate with it. In this

case no political consolidation whatever is conceivable, and the military regime is bound to be overthrown simply because it relies upon pure force but no supporters.

Clearly, when the political leadership completely loses the confidence of the masses and the active support of at least a substantial part of the nation, then the only way of maintaining its power is to ensure the momentaneous support of the armed forces at hand. History teaches, however, that regimes superciliously neglecting the political methods aimed at persuasion and at winning confidence are never long-lived. Every military coup is bound to be followed by another, until the absurdity of the development becomes clear to everybody.

There are military regimes which endeavour to win over the masses but exclude the educated layers from the leadership. Clearly, the problems of economic growth and government in general cannot be solved without the active participation of those layers. The lack of their co-operation cannot be compensated for by "re-educating" military officers into civil experts. This may be possible up to certain limits, but the government can win but tens or a few hundreds when thousands or tens of thousands would be wanted for accelerating economic growth.

Political regimes relying on the army may—under the circumstances previously expounded—fill up a vacuum that came about because the traditionalist political groups were no longer strong enough to undertake the solution of the main national problems while the radicals did not yet enjoy the support of the nation's majority.

Such regimes are, however, able to introduce new processes of development only when they succeed

- in ensuring the active participation of the masses in politics and in the field of economy,
- in starting economic growth in the spirit of a homogeneous, comprehensive conception.

When discussing the relation of politics and economy, we have repeatedly dealt with the interdependence of the two fields. Thus, the main precondition of starting economic growth is clearly the seizing of power by the political forces advocating social and economic transformation. On the other hand, economic growth has many short-term and long-term consequences in the field of politics some of which are substantial or even vital. Economic and political changes are factors of the social equilibrium, and this can be disturbed either from the side of politics or from that of economy, and the latter type of disturbance may also assume political forms.

The system of interdependence of economy and politics is further complicated by the fact that in a centrally controlled economy, fundamental decisions have to be made by political bodies.

As it is known, economic growth dissolves the previous equilibrium (a stagnation on a low level) and rearranges all existing political forces and economic resources. The economic leadership endeavours to anticipate the processes which will take place during a determined period of economic growth, and to weigh the future relationship between energies to be invested and the new values to be created. It

must select among different variants of a conception, to wit, prefer the one that promises the optimum satisfaction of a multitude of contradictory requirements and constraints.

When its anticipations regarding the economic phenomena of a future period are correct, economic leadership will be able correctly to design the targets the achievement of which is a precondition of others, and to foresee the centres of future tensions, that is, the branches of economy and the shorter periods of time where or when tensions are most likely to occur. This anticipation of future events—possible, of course, only up to a certain limit—enables the economic leadership also to plan mitigating measures for the periods when tensions tend to accumulate. The necessity and possibility of such measures will be discussed later on.

The economic leadership must review the whole complex of political consequences that will be involved in a certain series of economic decisions (national economic plan) comprising a period of some years. In other words, the political events directly or indirectly implied by a middle-term national economic plan should be anticipated and dealt with as a coherent complexity.

### The Impact of the Development Conception upon the Political Power Relations

Evidently, the processes foreseen in the national economic plan will concretely influence

- the international relations of the given country, and the totality of conditions under which its foreign trade will develop;
- the internal political position of the regime implementing the economic plan, depending on how and how far the plan will serve the interests of the population, as well as on the ways of its implementing.

The development conception or national economic plan influences the existing political balance of power (in both domestic and foreign relations) and its long-term development. Namely, every economic plan starts processes and induces effects the political consequences of which will appear only after a certain time.

It is particularly important to review the effects expected from economic measures at two different time scales, because there are measures involving great political tension at the time of their introduction but, later on, the factors induced by them will improve the general situation, and there are others whose effects (both positive and negative) will be felt only after a certain time.

Politically, too, it is desirable not to let the political tension caused by economic measures fall far below the “tolerable” level, since in this case economically useful measures would be unduly postponed; but tension must not be increased over the “maximum tolerable” level either, in view of the dangers connected with the disturbance of political equilibrium.

It would be evidently improper to concentrate into a short period of time a package of measures some of which would aggravate the international position of the country while others would drive into opposition substantial layers of the population. For instance, it is impractical to choose the same date for nationalizing foreign investments (a measure likely to involve countermeasures by some of the neo-colonialist powers) and for tax or price rises severely affecting the population. In this case, the economic pressure of the neocolonialist powers (sanctions, withdrawal of credits, discontinuing the supply of important goods, etc.) would combine with the oppositional mood of the population, thus giving an opportunity for the system's opponents to increase their activities. When, in addition, difficulties of a "purely economic" nature (say, a deficit in the balance of payments) are present, the equilibrium might get into danger, threatening to overthrow the given regime.

Therefore, it is desirable—if possible—to distribute the anticipated centres of political and economic tensions over a longer period of time. This distribution can be charted graphically. However, when "planning" political tensions and their distribution over time, one has always to keep in mind that the tensions resulting from international life will come about irrespective of the development conceptions of the given country. This is particularly important when the economic leadership has to take into account a possible reaction of foreign powers. For instance, it may occur that the nationalization of a foreign investment would seem permissible in view of the limits of "tolerable" political tension. Still, the particular neo-colonialist power affected by this measures would not tolerate it without taking countermeasures because some of its more important vested interests in other countries would suffer by the precedent created. Under such circumstances, the planned nationalization would have to be postponed.

Clearly, every political or economic action creates a host of tensions. The complexity of their consequences deter many a politician or economist from action. This behaviour, however, is mistaken if it does not examine whether the dangers connected with the abstention from action are not greater than the risks of the action itself. In the final account, nothing could be more dangerous for a developing country than to omit a necessary action. In this case, namely, the future conditions of action (and action at some time becomes inevitable under the constraint of economic difficulties) become worse, and rational decisions would require even more input of intellectual and material resources. And—we must stress this repeatedly—the systematic postponement of necessary action tends to undermine the nation's confidence in the abilities of the government.

The emphasis we lay on the necessity of action evidently does not mean that we are advocating premature action or such as would unjustifiably increase political tension. Clearly, overtension leads sooner or later to political indifference and apathy. Therefore, as it has been said before, tensions should be evenly distributed over time as far as possible, in such a way that their aggregate effect should always approach, but never exceed, the maximum limit of tolerance.

This is one of the main postulates of every rational political and economic action to be undertaken in any developing country.

Even the most rational and circumspect political and economic action will involve more or less political tension. However, when carefully weighing the possible consequences and dangers, one has to keep in mind that some kind of political and economic activity will always take place, independently of, or even against, the intentions of the government. This activity, too, would involve some movement and change in the structure of society, and amidst these spontaneous phenomena, the inactivity of the government cannot ensure either security or equilibrium.

The guarantees of maintaining and consolidating power consist, therefore, not in the abstinence from action or in its postponing, but in the circumspect initiatives and actions taking into account both the present conditions and the requirements of the future.

Here, the objection may be raised that, in this chapter, the author does not examine consistently the role of the state: at first, he contends that in the developing countries the state has to start economic growth, while later on, when discussing the mechanism of political power, he stresses rather the functions of the political parties, social classes, democratic organizations and the army.

This apparent inconsistency follows from the fact that the "state" has, in the different places of this chapter, two different meanings.

### The Role of the Executive Power in the Growth Process

When analysing the state's function regarding economic growth, the totality of political relations (that is, the social classes and layers, the political parties and the political power balance in the broadest sense) are included into the concept of the "state". Later on, however, when dealing with the structure and functions of political bodies, the concept of the "state" is identified with that of the "executive" power, as detached from the aggregate of political relations. Clearly, the functions of the "state" taken in the broader sense are much more comprehensive than those of the "state" in the narrower sense, that is, of its executive power (or "Administration" in the American sense of the word).

As it is known, in our century the role of executive power, in relation to legislative and judicial powers, has greatly increased. This process is, doubtless, accelerated by the introduction of a central control in economic development. The question may be raised whether the executive power would not become able, under such circumstances, to take over, or at least replace the role of the political parties, as we have seen it done by the army?

We should like to stress that we are analysing these problems without any pre-formed value judgement or prejudice. We have no more sympathy for the political parties or for the army than for the machinery of the executive power, the state bureaucracy. It is indisputable, moreover, that the last represents a huge force. The best economic decisions will miss their targets when badly executed. On the other hand, a well-organized apparatus, when elaborating for the political leaders

the variants of an economic decision in co-operation with competent experts, can influence the decisions themselves to a very wide extent. Let us add that the preparation and the making of complex economic decisions require such a knowledge of data and of scientific methods for dealing with them as the members of the legislative power generally are not acquainted with. Therefore, their contributions relate mostly to decisions on the territorial distribution of resources. (When speaking here of members of the legislative power, we do not restrict this category to the house of representatives. Namely, in many countries the leadership of the ruling political party or parties, or even of the army, discuss the bills before their submission to parliament, take decisions which, then, are binding on all their members, inclusive of the house representatives.)

Thus, the role of the executive power is decisive both for preparing and for executing economic decisions. In spite of this, we have to note that the executive power

- receives the main conceptions, creative and combinative ideas, from without, and such has been the case through the whole course of historical development;
- is not in a position to convince the masses on the desirability or inevitability of the measures in question;
- is not able to react quickly and elastically to the pressure or wishes coming from the masses or the public opinion.

From all this it follows that the executive power can never take over, or even replace the role of the political parties.

In our days, the high functionaries of the executive power are also recruited from the political parties (or the army). However, the responsibility, the way of thinking, the methods and limitations of those belonging to the executive apparatus radically differ from the conditions customary for political parties.

Political responsibility is broader and more homogeneous than the responsibility of the state administration. The way of thinking of a political party is more complex than that of the administrative authorities, because it always must reckon with the instant reaction, the change in the mood of the masses a measure may cause. Finally, political parties have several means to explain their points of view and to make their measures popular (meetings, agitation, party days, etc.)

The responsibility of the executive apparatus is more limited and specific, since it regards only the application and interpretation of decisions taken by other bodies. It is less concerned with the reaction elicited by a measure; it simply must issue the executive order as soon as the legislative power has made a decision. Eventual exasperation and discontent will be addressed to the latter. Nor does it endeavour to influence the masses; its prescriptions are obligatory for the part of the population affected by them, so there is no need for convincing.

Thus executive power, though its possession is the final target of political struggles and conflicts is not an organization able to conduct such struggles. It represents always a more neutral force than the political parties which concentrate the combatant forces. Its relative neutrality is expressed also in its avoiding to expose itself for economic or political objectives to the extent as political parties must.

Clearly, obtaining political power is a difficult and complicated task, especially when those seizing the power have to start from the lowest layers of society and nation. The great distance lying between a new-born political movement and the state power, as well as the fervent desire to possess it as the key to national and political rejuvenation, often creates in the leaders and their nearest adherents the belief that nothing is more difficult than the seizure, defense and conservation of power. Indeed, it is very difficult for a political movement starting from low to seize the power in fights against the old order based on social institutions, traditions and ideology; it is, however, by far not the most difficult one.

It is much more difficult to create such new social and economic institutions as are able to mobilize the whole society in order to improve and embellish the life of the working millions.

Human history looking back on several thousands of years knows about many political movements that were able to seize power, but few were able also to utilize it to the benefit of the people.



## The Necessity and the Elements of a Comprehensive Economic Conception

When a government has decided to accelerate economic growth, the first thing to do is to work out a comprehensive conception of economic policy (strategy of growth). This conception should outline all the main factors that are likely to play a part in the decade-long process of growth: the disposable potential energies, the scarcely available growth factors, as well as the anticipated equilibrium relations. The opponents of a planned control of economic growth often object that at this time, the preconditions for working out such a comprehensive conception are not extant; for instance, statistical data of the necessary scope and reliability are not yet available. In many cases it is not possible to assess reliably the amount of national income or even the rate of population growth. In several developing countries no industrial census has so far been conducted; as regards agricultural production, only its exported part can be exactly measured. In most of these countries the assessment of the geological wealth is not yet accomplished and in many it has not even been started.

These are, naturally, pertinent objections, and the developing countries must do their best to reveal the concrete economic processes more exactly and to explore their natural wealth. But this does not mean that a government can postpone economic decisions until the adequate data are at disposal. The government of every country is bound to make economic decisions, since it has to set up a budget of incomes, recurring and investment outlays. Even the foreign-trade activity has a kind of state balance, irrespective of the organizations conducting it.

It seems reasonable to assume that the economic decisions of a government will be more purposeful and adequate when following a comprehensive conception of economic policy than without it. The limits of possible error are likely to be much broader in the latter case.

At the time of starting economic growth, also the drafting of a short-term plan may become necessary, even before the comprehensive, long-term conception is fully elaborated. This is certainly the case when the working out of the full conception takes a considerable time. However, even the best short-term plan cannot replace a long-term strategy of economic growth. Therefore, short-term plans must rest on the hypothetic assumptions underlying the long-term conception. As is understood from this remark, we do not make a "fetish" of the economic plans, and believe that no plan can substitute a comprehensive, rationally purposeful conception of economic policy. The quality of any economic plan depends exactly

on the correctness of the conception of economic policy it is representing. (Needless to say that by economic policy we mean the broadest contents of the term, including the choice of methods and means by which the government endeavours to achieve the objectives of economic development.)

On the other hand, it is indisputable that when the data regarding the various economic processes, resources and relations are unreliable or inaccessible, our expectations concerning the conception of economic policy must be limited, namely,

a) we must rest satisfied with a less detailed conception, in which the number of physically measurable phenomena and of their physical interrelations is rather restricted;

b) the conception must be limited also in time, that is, it can embrace only a shorter period.

The first limitation is justified and necessary also because the multitude of details—especially when their numerical assessment is not quite reliable—might curtain off the basic relations and problems of economic growth.

On the other hand, we believe that the limitation in time of the conception would not make the task easier. Problems with a given extent of complexity cannot be simplified by jamming them into a shorter period. On the contrary, the assessment of the long-term effect of certain growth factors becomes less reliable when shortening the period reviewed. Finally, the foresight and the adequate distribution in time of the peaks of tension expected is possible only when we analyse the problems of growth in a longer perspective.

It follows that the conception of economic policy must not be too detailed and must not cover all numerical relations, yet it should foresee all the main problems of the whole growth period. It is in this way that the conception may develop into a strategy of growth.

### Factors to Be Co-ordinated in the Planning of Growth Strategy

The main task of the strategy is to find the optimum harmony between potential energies, growth factors and rational human action. At the time of starting growth the positions of these three categories are different. Potential energies are abundant (at least in most developing countries), the growth factors (resources) are scarce and the scope of rational human action is limited. (The causes of this limitation are different, one of them being the shortage of highly qualified experts, another, the lack of accumulated experience in the state apparatus, a third, the traditionalist behaviour of certain economic formations, and so on.)

However, one of the growth factors generally abounds in the developing countries, and that is unskilled manpower. There may be differences between countries according to the number and density of population but, over a longer period, the supply of manpower will in every developing country exceed its demand. Other growth factors are scarce but it is possible to concentrate them on some chosen

tasks. Thus, it is the abundant and the scarce but "concentrable" growth factors that must be utilized for transforming the abundant potential energies into effective (kinetic) energies. For instance, formerly unexploited raw materials will be intensively exploited and either sold abroad or processed at home. From the proceeds of increased exports, it is possible to increase imports, partly of capital goods in order to lessen the shortage of this category of growth factors, and partly of consumers' articles in order to meet the increased purchasing power of the population.

When manpower is the unique abundant growth factor, then growth must be built up for a long period on this basis. This means that an increased employment must be aimed at in all branches where manpower can replace capital goods. Such a possibility is present, for instance, in agriculture if new areas cannot be brought under cultivation and if technology is at least at the level of the universal use of the iron plow. On the other hand, manpower, however abundant, cannot replace capital equipment in the branches where the product of large-scale industry is incomparably better and cheaper than that of small plants (for instance, metallurgy).

This type of growth is called *capital-extensive*. In this case, the conception of economic policy regards the amount of employment as the main optimum criterion. Accordingly, the rate of growth of the national income and of accumulation will be rather slow (as against the case when these rates are being regarded as optimum criteria).

Clearly, the planned, purposeful employment of manpower can greatly contribute also to the improvement of the future conditions of growth. Thus, for instance, in the period of capital-extensive development it is possible to lay down the basis for a future, more capital-intensive agriculture, in so far that by mass employment of manpower the possibility of irrigation (one of the most dynamic factors in the development of tropical farming) can be extended.

In the branches (mainly of industry) where manpower cannot be substituted for capital equipment, the development must be capital-intensive from the beginning. In view of the general capital shortage, the few investment projects on which capital will be concentrated must be very carefully chosen.

When manpower reserves are very large, the capital-extensive line of development may continue to be dominant for several decades; smaller manpower reserves, however, will sooner or later enforce the switching-over to a more capital-intensive development policy. The satisfaction of the latter requirement is rendered difficult by the shortage of capital and qualified labour.

Thus, oversupply of manpower is one of the factors that will be decisive for a long-term conception of economic policy.

Another such factor is represented by the abundance and nomenclature of raw materials. While the supply of manpower influences the economic conception in a more general way, namely in the direction of capital-extensive development, the factor of raw materials has a more specific influence, namely on the future economic structure. It is clear that—apart from some exceptional cases—the bulk

of the home industry has to be built upon domestic materials. This is particularly so in the case of the developing countries where both the investment and recurring costs of industry are necessarily above the world average; the first because most of the capital equipment has to be imported, and the second partly because manpower is less qualified and partly because the economic environment of the new plants is inadequate. If, in addition to all this, also the high costs of imported raw materials contribute to lessen the efficiency of the new industry, then the new value produced will not be proportional to the spiritual and material values invested in industrialization.

A very important requirement of growth consists in the synchronous development of industry and agriculture. As it is known, industrial output can be increased at a relatively high rate. But when planning this rate, one has to take into account:

a) the rate at which the internal market of the industrial articles to be produced (mostly consumer goods, at the beginning) is likely to grow; and this will depend above all on the rural populations' purchasing power determined, in turn, by the development of agriculture;

b) the rate at which the demand for marketed food will increase in consequence of the growth of industrial population;

c) the rate at which the exports of agricultural products must grow (at least in the first decades) in order to cover part of the increased demand for imported goods.

The rates of growth of industrial and agricultural production must show a certain relation that can be numerically determined on the ground of the above considerations. Anyhow, taking account also of the rapid population growth, the agricultural production of most developing countries should be increased, at the least, by about 4 to 5 per cent annually.

This rate must be attained in most cases mainly by substantially increasing hectare yields, although here and there also possibilities of extending the cultivated area may be present. As for the alternative of increasing either the employment of machines or that of fertilizers, the latter seems to be more advantageous since fertilizers directly increase hectare yields whereas machines substitute for manpower, that is, the most abundant factor.

Another reason why the growth of industrial and agricultural production must be strictly co-ordinated has rather a social than economic character.

While it is relatively easy—in the presence of investment capital—to build up an industry and to recruit its workers from among the country's agricultural population, it is practically impossible to lure anybody back from industry to agriculture, that is, from a relatively easier work to the painful drudging in the fields, from the (however modest) amenities and social freedom of town life to the backwardness and the traditional social constraints of the village. Therefore, when industrialization goes substantially ahead of agricultural and rural development, the bridging of this gap by improving agricultural technology and the rural way of life will prove almost impossible (however necessary it would seem under the economic considerations mentioned) simply because the younger, more intelligent and progressive-minded elements of the rural population have left the villages for

ever, leaving back but the old people and the physically or morally crippled on whom no sound agricultural development can be built.

Moreover, we must stress that the direct consequence of a rapid industrialization, that is, the switching over of a great number of workers and their families from agriculture to industry is, in the developing countries, increased by a certain multiplier. Almost invariably, more people will migrate into the rapidly industrializing urban centers than are able to find industrial occupation. This surplus of manpower flows into the towns in the hope that, until finding a final occupation in industry, "odd jobs" will ensure a standard of life still substantially exceeding that of the average villager. Therefore, the population immigrated to, and retained by, the urban centres is always much greater than what the number of jobs offered by industrialization would actually make necessary.

### Changes in the Equilibrium Conditions in the Various Phases of the Growth Process

One of the most decisive problems of the conception of economic policy consists in anticipating the changes of equilibrium in the various phases of the growth process. Namely, economic growth necessarily upsets the previous equilibrium because it creates additional demand but postpones its satisfying to a later period. The instability of the domestic equilibrium is mainly due to the shortage of capital. In view of this, many governments seek to ensure economic growth by strengthening or at least tolerating inflatory tendencies.

However, the equilibrium of the trade and payments balance is even more unstable. Demand for import goods increases rapidly and cannot be instantly covered by increased exports. True, there are economists who believe that the dynamics of economic growth of the developing countries should rest on the increase of exports. This conception, however, means a perfect misinterpretation of world-economic relations as they have developed in the second half of our century. How could exports serve as a basis for economic growth in countries suffering annually growing losses as a result of the deterioration of the terms of trade? Of course, there are countries endeavouring to improve their economic situation by increasing their traditional exports; but whoever knows the price relations and the terms of trade of their export goods will recognize that such efforts mean but the making the best of an inherited situation rather than a purposeful economic expansion.

As regards imports, the sensitivity of most developing countries is great. Imports have to be reduced as much as possible, chiefly because the possibilities of an export increase are rather limited. Therefore, the industrialization of the developing countries must be (mainly, but not exclusively) aimed at the reduction of import demands. This consideration is of paramount importance in working out a homogeneous conception of economic policy.

When planning the long-term characteristics of the chosen direction of economic growth, the political and social problems involved also deserve due attention.

The most important of the relevant considerations is the one concerning the distribution of sacrifices among the various layers of society and over a series of generations.

Most of the burden connected with the economic growth of the developing countries lies, in a longer perspective, on the rural population.

In countries where industry is relatively underdeveloped, the main part of the incomes of the state budget is secured either by a direct tax on the peasantry or by indirectly burdening them as producers or consumers through the system of prices or indirect taxes. The proprietors of land (including also the tribes as proprietors) generally pay substantial taxes; the agricultural products destined for export are being purchased at prices far below the world market level; and the prices of the imported consumer goods are raised through custom tariffs which, in the last analysis, is also a burden on the agricultural population (because most of the direct consumers of such goods live from the exploitation of the agricultural population). In countries where large estates still exist, their taxes are being shifted over to the small tenants, that is, to the peasants cultivating the land. Namely, the landowner, under the conditions of a constantly increasing demand for land, is always able to pass on his tax to the tenants, however great and progressive it is. In addition, in many developing countries also the system of obligatory product delivery to the state (that is, at relatively low prices) has been introduced.

Clearly, the heaping on the peasantry of most of the burden connected with economic growth is inevitable in the initial period of economic growth. But the principles and objectives of economic policy are not self-contained categories; they can prove right or wrong in the light of other, equally important principles and objectives. Economic activity as a whole is never directed at a single target, it has always to serve a host of interrelated objectives at the same time. The excessive stress laid on a single principle or objective always leads to disproportionality and to the waste of resources because, with other factors stagnating or deteriorating, even the realization of this single principle or objective must necessarily suffer.

If the peasantry has to bear most of the burden connected with economic growth, its production and income must be substantially increased. Excessive taxes (or withdrawal of income through the price system) would act against both the growth of investments into agriculture and the labour input made by the peasantry. Any system aimed at withdrawing part of the peasants' income must be constructed in such a way that the economic interest of the producer in making productive investments and thereby increasing output be maintained. Otherwise, though perhaps possible to augment the income of the state budget, the agricultural output will not grow adequately, and the demand for imported agricultural products will increase. The balance of these two changes will be invariably negative.

It follows that the burden of the peasantry connected with economic growth must be proportional to the development of agricultural production which, in turn, must meet the rising needs of the country.

One has to account also for the fact that in most developing economies the development resources are generally utilized with a sub-optimal efficiency. The

population feels the discrepancy between the sacrifices and their apparent results but is not able to change it. Therefore, it often happens that a substantial part of the peasants' income is withdrawn, either by taxes or the price system, but the utilization of means accumulated in the government's hands is poor. The population and, within it, the peasants then feel that part of the means withdrawn from them is being wasted, investments do not enter into operation at the planned dates, some of their products cannot be marketed, etc. Such experience is likely to undermine the population's confidence in the development targets set up by government.

On the ground of careful economic calculations, however, it is possible to determine the optimum rate, amount and methods of income withdrawal, that is, the point at which the state's income is relatively satisfactory and the producers find it still worthwhile increasing and improving their output. An economic situation encouraging rural production is advantageous also from the angle of general politics (provided that the productive mood of the peasantry is not being adversely influenced by other political mistakes affecting the peasantry and its political behaviour).

### Rate of Growth and Burdens of Development

Another question is the distribution over time (that is, over several human generations) of the burden of economic growth. Clearly, the "key generation", that is, people between 30 and 50 at the time of the economic transformation, have to bear most of this burden. Their sacrifices are being felt even greater because in most of their lifetimes they do not enjoy the political and social achievements that will be commonplace facts for their successors. For, although the following generations will still be confronted with serious burdens and hardships, they will take for granted such advantages as political independence, equality of all human beings and the right to education.

We have seen that economic growth is a long and complex process, and each of its phases has difficulties of its own. Still, the first decades following the start of growth are the most difficult, and it is inevitable for the "key generation" to bear more burden than for any other. To take one single example: in the next generation there will be a greater number of qualified experts, and this will greatly facilitate work of every kind. At present, the main difficulty of leaders and other qualified experts consists in the lack of "partner experts" in the related fields of work; each of them has literally to do the work of two or three.

The leadership of a country must recognize this objective situation and do its best to relieve the "key generation" of at least part of the extra burden connected with economic development. This endeavour may apparently slow down progress but in reality it is likely to ensure a more stable rate, because overstrained economic leaders and experts necessarily get prematurely exhausted, used up and inclined to apathy. It will be then their lack of initiative and undertaking that will hinder progress.

We see that a comprehensive, long-term economic conception must embrace even such and similar problems. Only such a comprehensive conception can make it possible to foresee all problems, difficulties and tensions of the long process of growth, and to take adequate measures to solve or at least mitigate them. Only the presence of such a conception can ensure the complex way of thinking which is necessary to cover all possible political and social consequences of every economic decision.

The future of the political regime depends on economic growth. This, in turn, depends on rational human action, on the co-ordination of individual and social interests, on the purposeful, dynamic way of thinking of the individuals and groups taking part in economic activity. Therefore, the "human relations" must be accounted for with the greatest care during the whole process of growth.

Rational human action on the national economic level must always start from two basic groups of factors: first, the potential energies, second, the main factors influencing growth.

Both groups comprise a whole set of endowments, means and processes. The potential energies represent the relatively inelastic element, while the growth factors are more mobile and interchangeable. However, the extremely complicated character of the growth process, consisting of an endless set of collective and individual decisions and actions, makes it impossible to survey all endowments, means and processes; investigations and assessments must be restricted to the most important ones.

Accordingly, we shall deal only with the most important potential energies. Some of the related problems have been touched upon in Part One.

We shall regard as fundamental the following categories:

- a) the number and density of the country's population, compared with that of other countries and in relation to the amount of the available capital; these data must be analysed also in detail for the various parts of a country (regions, provinces, federated states);
- b) the relation between the area of cultivable land with regard to the direction of agricultural development and the requirements of the food supply;
- c) the amount, nomenclature and location of the exploitable raw materials with regard to the direction of industrial development and to the international division of labour;
- d) the potentialities inherent in the historic and politico-geographic conditions, that is, culture and civilization and the way of thinking and attitudes of the population partly determined by tradition, on the one hand, and the country's location on the given continent, its regional features together with their consequences, on the other.

As the main "mobile" factors influencing economic growth we shall regard:

- a) the resources and possibilities of accumulation in the process of growth with regard to the financial policy of the government;
- b) the role of foreign trade in the growth process, with regard to the problems of economic equilibrium;



- c) the possibilities of increasing agricultural production with special regard to the demographic revolution;
- d) the alternative possibilities of industrialization;
- e) the educational and science policy as a decisive factor in liquidating backwardness;
- f) the role of social institutions in the acceleration of growth;
- g) the economic organizations and their role in the growth process.

In the following, we shall endeavour to throw light on the interrelation of potential energies and mobile growth factors from the angle of a comprehensive economic conception of the strategy of growth.

## Potential Energies of Economic Growth

The potential energies constitute only one element, but an important one, of rational economic actions which in the last analysis are the preconditions of every type of economic growth and development. By potential energies, as pointed out in Part One, we understand such natural-geographical and political circumstances and characteristics as become or can become economic potentialities. Evidently without rational human actions the most favourable natural-geographical circumstances remain passive energies. Rational human activity conducted on a social scale is meant to transform these passive energies into active ones.

By their very nature the potential energies constitute a relatively stable (i.e. less elastic) element of economic growth, for various reasons:

- a) the natural-geographical conditions as economic factors are given; they can be developed or neglected, but we cannot break loose from them;
- b) certain economic potentialities can be changed only within a long-range period, whence their transformation must not be envisaged within a short- or medium-term period;
- c) the changes in certain potentialities (politico-geographical factors) do not depend on the decision of the government of the country.

As can be seen from the foregoing, the potential energies are subject to constant changes and movements, yet some of these changes are independent of the decisions that can be made by a country for a short- or a medium-range period. In other words: some of the changes can only be foreseen and taken into account in the course of our actions, but we are unable to influence them.

Naturally, a considerable part of these changes are in some relation to human decisions and economic growth, in so far as they may contribute to an extended and accelerated transformation of existing, known potential energies into kinetic energies. But in the sphere of short- or medium-term action, these changes can hardly, if ever, be altered, and for human decision there remains only the possibility of their correct anticipation and utilization. Such cases may be, for instance, the following:

- a) In the course of technological progress in the world such materials or other natural endowments as had earlier not been considered as such may turn into potential energies. The potential energies of a country, then, may grow not only through geological research revealing materials hitherto unexploited, but also by discoveries and inventions made in some remote part of the world.

b) The ratio of the population to the cultivated area depends not only on the development of the latter but also on the growth rate of the former. The attitude of the population in respect of reducing the growth rate can be also influenced, chiefly through the facts of economic life, but this requires much time, and the consequences of a change in the attitude will become economically effective only after several decades. Hence, when taking decisions for a short or a medium term, the growth rate of the population should always be considered as relatively stable.

c) In the course of economic growth and development both the role and the weight of the various types of potential energies will change. The new phenomena (or, better said, the new combinations) in economic life materialize through the environment of the processes and not through the individual processes themselves. In this sense, a new situation develops, requiring new combinations, because the significance of the old process and its relationship to other processes have changed. Since the weight and significance of the potential energies do not lie in the energies themselves, but depend on the totality of economic circulation, the changes in this latter modify also the significance of the energies. It is common knowledge, for instance, that certain potential energies play an important role in the first phase of economic growth but later gradually lose their significance. And other potential energies which at the outset involve more trouble than advantage are known to become lucrative in an economy well provided with capital.

d) Finally the inherited mentality, norms and value judgements influencing public opinion also change within a longer period. This process takes place chiefly in an indirect way; the new social reality brings about new norms and attitudes which, though coexisting and mixing with the old ones, eventually oust them.

Considerable and constant changes are taking place also in the politico-geographical situation of the various countries. Owing to the transformation of the active or passive power relations, whole continents or regions acquire greater political importance. On the other hand, changes may take place also in the international political position of a continent or region (e.g. the position of some great power becomes stronger or weaker) or in the internal political situation (e.g. a change of regime affecting the influence of the given great power upon the surrounding countries).

In spite of the many possible alternatives, the potential energies are a more determined and less mobile element of economic growth than are the other factors affecting growth.

### The Effect of Potential Energies on Other Factors Influencing Growth

We have already referred to the connection between the potential energies and other factors influencing economic growth. In the first and most difficult period of economic development, the potential energies may, to a certain extent, counteract

the shortage in other growth factors (accumulation, links with world economy, etc.) Naturally, the transformation of potential energies into energies producing a cumulative effect is inseparable from the level of economic advancement. Yet the launching of economic growth also involves that the domestic market and, through it, the world market contribute, by an entire system of combined effects, to the transformation of raw-material exploitation from its primitive forms into a gradually modernized branch of the economy.

The abundance of potential energies has another great advantage for a developing country as far as the organic development of the growth process is concerned: under such circumstances the national income can be increased by extensive methods over a longer period. This mode of increasing national income is in compliance with the abundance of manpower. This, too, requires namely the choice of the capital-extensive growth type, that is, mass employment and the substitution of capital by live work. But in the course of extensive growth the conditions of switching over to the intensive type of growth can gradually be created by establishing an adequate science policy, by increasing the number of qualified experts, by adapting their qualifications to the local requirement, by developing economic organization etc.

The situation would obviously be more difficult if, on account of limited potential energies, the extensive growth type were not practicable and therefore it would be necessary to switch over right away and without transition to the intensive type. In this case, owing to the scarcity of the growth factors, development would lead to a serious disequilibrium.

We have already pointed out, however, that potential energies today are sufficient in almost every developing country to start the economic growth with the help of rational human actions.

Hence, the amount of potential energies, in itself, does not decide the question whether economic growth will start or stagnation will continue. But once growth is started, these energies will affect four vital processes (i.e. the economic decisions associated with them):

- a) the choice of the type of economic growth,
- b) the development of the economic structure,
- c) the rate of growth,
- d) the relations of the growing economy to the world market.

### Types of Economic Growth

The type of economic growth in most developing countries will, for a long time to come, be capital-extensive. This is the consequence of the fact that unqualified manpower is available in large quantities whereas there is a grave shortage in capital. With capital-extensive growth, employment rapidly increases; hence the national income and the investments will develop slower than under the capital-intensive type of growth.

Provided the available potential energies are considerable, i.e. sufficient arable land and exploitable raw materials are available, the extensive type can secure, during a long period, the amount of commodities necessary for a sound economic circulation. The shortage of qualified manpower may, naturally, cause difficulties; the abundance in unskilled manpower may become an active growth factor only when technicians, hydrologists, engineers, foremen and inspectors, etc. can control and organize the work of the masses. It is obvious, then, that part of the skilled manpower must be secured from abroad, yet at the same time adequate efforts are to be made to train specialists at home.

Another problem is that there are no more lands to claim for agricultural cultivation, or that existing ownership relations (system of large estates) put an obstacle to such endeavours. In such cases, the land reform is evidently indispensable, being one of the precondition of balanced economic growth. If, on the other hand, there is practically no new land to be claimed, then agricultural production can be increased only through the hectare yields. This can be attained by increasing the inputs per hectare of either labour or capital, or eventually of both. In view, however, of the general shortage of capital and also of the manpower being not sufficiently qualified for a capital-intensive development, such methods should be preferred as do not require large capital investments but make it possible to exploit the abundance of manpower. It may happen, for instance, that production can be increased by the extension of irrigated areas. This is a useful solution because it develops the most dynamic factor of tropical agriculture, the water supply, and also because irrigation projects require relatively little capital and much live labour. Thus, a combination of means can be brought about in which, after all, manpower will be substituted for capital.

It should, naturally, be taken into account that unqualified labour can play a decisive part only in the execution of such projects; their elaboration requires highly qualified specialists with a profound knowledge of the given hydrologic conditions, and also the operation of water supply systems requires the regular services and observation of adequate experts.

When in a given country also the reserves for irrigation are fully exploited, a certain increase of capital-intensity becomes indispensable. These additional inputs of money should be used in the first place for the acquisition of artificial fertilizers rather than for mechanization. Namely, mechanization, provided the forms of cultivation have already reached the stage of the steel plough, would save labour which, for the time being, is abundant in most of these countries. Artificial fertilizers, on the other hand, when adequately applied and combined with intensive manual work, considerably enhance hectare yields.

This shows that exclusively capital-extensive methods cannot be used in agriculture either, even in densely populated countries. The capital-extensive type of development—in this case, as also in general—is practicable only up to the extent to which the replacement of capital with live labour is economically reasonable.

The extensive growth type has a certain significance even for industry. In many industrial activities, the application of labour-intensive, less mechanized produc-

tion methods does not reduce the use value of the goods. Often it makes them even more attractive, better suited to local taste and improves their quality.

This is the case particularly with many products of the light industry. There are, on the other hand, industrial branches, such as metallurgy, the production of steel and high-temperature alloys, etc. where only large-scale industrial plants are able to turn out materials or finished goods meeting the necessary requirements. In such cases capital cannot be replaced by labour, and these plants must be provided with up-to-date means of production in a capital-intensive manner.

There are other reasons necessitating the capital-extensive and labour-intensive production in a large part of the light industry. At the beginning of economic growth, the exchange of commodities between the urban and the rural areas must consist preponderantly of the "textile-for-food" business, since the rural population at this stage does not need—and cannot even handle—machines, and there is no place in their simple dwellings (not to mention the purchasing power) for manufactured furniture, household goods, etc. (In some countries, there is already a substantial rural market for such goods as cycles, motor cycles, pocket radios, etc., as well as for some types of canned food; but even this does not alter the general proportions.) Small-scale and handicraft industries, small plants should continue their production because large-scale (mostly state-owned) industry is not yet capable to provide a sufficient supply in textiles and clothing to meet the growing purchasing power of the rural population. Nor would the state, on the other hand, be able to offer opportunities of work for all artisans and craftsmen, if they were displaced all too rapidly by the big industry.

Thus, any relatively high population density tends to promote the capital-extensive type of economic growth. In this case, however, the productivity of labour, and with it, national income and consumption will grow slower than under the capital-intensive type of growth. Evidently, a sound economic policy always relies on the harmonious combination of the growth types rather than on a single sloganized principle. Therefore, the capital-intensive development has its special fields even in the period when, in general, the capital-extensive growth type is prevailing. Such special fields are the branches of industry already mentioned and even agriculture in the case of land or water shortage.

### The Effect of Potential Energies on the Planned Economic Structure

In the first period of economic growth the available potential energies have a decisive influence on the development of the economic structure. It is only after having made some progress in economic development and, particularly, in the supply of skilled labour that economic policy becomes less dependent on the natural-geographic conditions. The "comparative advantages" (if any) of an underdeveloped economy rest exactly on its natural-geographic endowments.

Whenever economic growth is started, there always exists some kind of economic structure which has developed in the past, in most cases in compliance with the economic interests of the colonizing powers but neglecting the needs of the domestic population or of the national economy. In the years to come new demands and needs will appear in the economy, or former needs will substantially grow in importance. Part of these can be met by the exploitation of potential energies.

New categories of demand will crop up, above all, the demand for capital goods. Also the ways of meeting the demands are changing, some demands met earlier by imports will be satisfied by the home industry. Since part of the potential energies are yet unexploited, and since some potential energies can be converted to a certain extent (for instance, there are alternatives as to what crops will be grown on the cultivable area; home-produced raw materials can be either processed at home or exported in order to be able to import others, etc.), any research work concerning industrial development must investigate not only the possibility of marketing the product but also the possibilities of producing the necessary raw materials for them at home. As a rule, industrialization should be based on home-produced raw materials. It should therefore be investigated:

- a) whether the necessary agricultural product or industrial raw material can be produced at home under the prevailing conditions;
- b) whether, in order to ensure the agricultural product in question, it is necessary to reduce the area of other crops;
- c) under what conditions of rentability, with how much investment and at what rate of return can the raw material or agricultural product be obtained at home.

In this respect there are differences between the exploitation of industrial raw materials and agricultural production. Large-scale production of the former necessarily requires investment of capital, while parts of agricultural production, under certain circumstances, can be transformed without major investments and, in some cases, at a quicker pace. (This statement, naturally, does not apply to the whole of agriculture, but in almost every country there are agricultural sectors capable of such a transformation. As far as it concerns the starting or extension of the exploitation of raw materials, the main problem will be always whether the government is able to afford the necessary investments. If these are not available, which is often the case, then the possibilities of association with foreign enterprises for a definite period should be investigated. This situation again proves that the national economy must already achieve a certain degree of development—in this special case regarding its capacity of accumulation—before it can efficiently utilize its comparative advantages inherent in the existing natural endowments. The point is that, in the past, all profit resulting from either of these endowments or from the abundance of manpower went to foreign enterprises. In most cases, a certain transitional period must then follow when these profits are shared between the national economy and the foreign capital. The form of joint operation seems reasonable also inasmuch as it helps secure foreign markets. Of course, many

foreign enterprises are reluctant to recognize the new power relations and the self-contained economic targets of a new-born state. With these, joint operation is neither possible nor desirable. It is still less admissible, however, to let them hold their formerly acquired positions.

In the moral sense, no capitalist is better or worse than the other, but some of them are more inclined to rational thinking while others are more or less blind to recognize changed circumstances. The former are more or less ready to consider the existing power relations, the latter endeavour to change them, i.e. to initiate, through their governments, political and economic "sanctions" against, and financially to support conspiracy and subversion in, the countries concerned.

Anyhow, the lack of capital impedes the extension of exploitation, the opening of new sites, in spite of their evident "rentability" in the economic sense. The rentability factors prevailing in a developing economy naturally differ from those of an advanced industrial country. Economic policy, however, should rely on the assumption that, under favourable natural preconditions, all economic activities are—or must be made—remunerative in which capital can be replaced by labour, simply because they are advantageous for the national economy as a whole. We do not share Tinbergen's<sup>1</sup> opinion according to which the marginal productivity of manpower is zero. We contend that economic growth can only be built on factors abundantly available, rather than on the scarce ones.

Further complications enter as soon as there is an endeavour to create industries for the processing of (or part of) the given raw material or agricultural product. There is no doubt that, in a developing economy, the comparative costs show an increasing tendency when it proceeds from raw-material production toward the higher levels of processing.

This tendency is due to the low level of the economy; the control of the more complicated production processes requires a better infrastructure, wider technological and organizational experience and more capital than are available in most of the developing countries. Moreover, at the higher levels of processing, capital can be replaced by labour to a much smaller extent than in the production of raw materials. In transportation the situation is much the same. No mass input of manpower will be able to make up for good roads, for the adequate facilities and organization of storage, for mechanized loading and transportation (particularly when the commodity is subject to deterioration over time).

Nevertheless, we do not agree with the opinion (held by many authors) that there is no sense in industrializing countries the comparative advantages of which lie exclusively with the production of raw materials. First, the extent to which raw-material production involves comparative advantages is a function of the world market situation, i.e. of a broad set of economic factors. The aggregate of these factors determines the limit beyond which the comparative advantages rapidly

<sup>1</sup> J. Tinbergen and H.C. Bos: *Mathematical Models of Economic Growth*. McGraw Hill Book Co., New York 1962, pp. 32–53.



disappear or even turn into disadvantages. Second, raw-material production—with the exception of that of mineral oil—has, disregarding transitional booms, undergone various crises in the past decades as a result of the worsening of the terms of trade. (The shift of the terms of trade to the disadvantage of the basic materials is known to have attained about 26 per cent in the past decade.) Nor can the fact be contested that it is extremely difficult to market raw materials or agricultural products that are not consumed in the producing country, since the seller is then at the mercy of the wealthy buyer. Finally, it should be remembered that the efficiency of a national economy must not be judged exclusively from the profit-earning capacity of the individual enterprises or of the various productive branches. In an economy where manpower is the only abundant factor of economic growth, it is unreasonable to leave this factor unexploited. In other words: employment should be increased to accelerate economic growth. This is, however, not easy, first, because the increase of the working places invariably involves some material expenditure even with the greatest parsimony, second, because the population in working age is constantly and rapidly growing (as both the number and the life expectancy of the population increase) and, third, because there is a very great and ever growing "latent unemployment" in agriculture. The gradual introduction of the new order of economic circulation, i.e. the launching of economic growth, cannot be conceived without the extension of employment which, in turn, involves the creation of more working places.

Manpower should be drawn into production so as to promote the long-range development conception in the given circumstances. This can be achieved by the simultaneous, combined application of three different methods:

- a) by utilizing rural manpower in water works, road construction and in similar activities increasing hectare yields of agriculture or improving the infrastructure of the economy as a whole;
- b) by organizing the activities of the artisans and craftsmen so as to create jobs for many and to ensure exchange products for buying up agricultural produce;
- c) by gradually building up domestic large-industry scale.

However, such an economic policy, though it incontestably promotes economic growth by gradually building up the processing industries based on domestic raw materials and at the same time leaving free a sufficient surplus of basic materials for export, is not necessarily "remunerative" for the industries concerned or in international comparison.

This fact convincingly shows that the traditional mentality and economic mechanism of capitalism are unsuited to solve the problems of the developing countries. What kind of economic activity could be, indeed, created in a country where even the industries processing domestic raw material operate at a loss under the existing conditions? The whole country can, obviously, not be engaged in raw-material production, partly because full employment could not be ensured in this way, and partly because it would be almost impossible to maintain the foreign-trade equilibrium if the country's whole demand for manufactured goods had to be met by imports and to be paid for exclusively by exporting raw materials.

In such cases economic policy must create some kind of a "conditioned environment" for a transitional period, enabling the manufacturing industry or plant concerned to produce with profit. To this end

a) it is necessary to restrict the import of the products in question or impose a high duty inducing the majority of the population to buy home products (those sneering at this and referring to the drawbacks of import-saving industrialization should remember that Benjamin Franklin, too, wore rough clothes to propagate American goods);

b) the price of the domestic product has to be set in such a way that its production become profitable, even if the price level exceeds the "real value" of the product. The extent of the price rise, however, should be seriously premeditated. High prices may become an obstacle to the growth of domestic consumption and, by this, to the extension of the production of the commodity in question. With no "economy of scale", however, the production costs cannot be cut and even tend to increase. Therefore, the price level must be set at the point where it ensures the maximum *amount* rather than the highest *rate* of profit.

Industrial protectionism and the conditioned environment created by it, no doubt, involve the danger of assuming a tendency of perpetuation. Protected industries acquire a comparatively convenient position since the consumers not only cover the losses that are inevitable under the given circumstances but also pay for the consequences of indolence and irresponsibility. Thus, the government should do its best that protectionism, created in the interest of establishing certain branches of industry, should last only until it is absolutely necessary. (Clear judgment in this field is made rather difficult by the fact that, after a certain time, economic life begins to adopt the protected prices as "normal" and get used to them. In addition, the protectionist policy, too, produces its own theoreticians who look upon industrialization financed, in the form of high prices, by the consumers not as a transitionally reasonable measure but as an inherent feature of the prevailing social system they feel obliged to be proud of.) If the protection afforded to industry cannot be discontinued within, say, one decade, then it is more reasonable to introduce direct subsidies or the refunding of losses in place of the former high prices; but sooner or later the normal value relations should at any rate be restored.

The potential energy of a country represented by its wealth of important raw materials constitutes no economic advantage in the strict sense of the word, unless part of them is processed at home under economical conditions. It is only then that the potential energy obtained from nature becomes the basis of a wide economic activity which, in each phase of vertical development, ensures sufficient employment, enhances professional knowledge, develops the faculty of guidance, yields profits from which government and social expenditure can be covered.

The exploitation of the potential energies inherent in agriculture also involves a set of economic problems. When talking about the growth type we have touched upon some of these. Here I would rather point out that, under given climatic and soil conditions, depending on the economic circumstances, different crops can be grown. The comparative advantages of the developing countries are known to

be the greatest in what are referred to as tropical crops. Most of these do not require much capital or a very labour-intensive activity. There is no doubt, however, that most of these products have a poor elasticity of demand, since their world consumption rises relatively slowly, while supply tends to increase rather rapidly. Therefore the prices of these products (often in spite of adequate agreements) show a decreasing trend; a growing amount of them must be exported annually to maintain the same income level.

On the other hand, the developing countries fail to keep pace with the rapidly growing needs of the population for the staple products of agriculture such as grains, meat and dairy produce. There is no doubt that the temperate zones of the world enjoy comparative advantages in the production of these foodstuffs. Each developing country individually, and mankind as a whole, are facing therefore the following problem:

a) If the developing countries make full use of their comparative advantages in the production of tropical crops, they can increase their exports only to the extent to which the consumption of the tropical products by the peoples in the temperate and frigid zones increases and, owing to the relatively slow increase of the population of these zones, this demand tends to be rather inelastic.

b) On the other hand, in this case they would have to import such fundamental agricultural products for which the temperate zones have incontestable comparative advantages, and which can only be produced in the temperate and frigid zones. This import demand tends to grow very rapidly through the next decades, partly because of the fast growth of population in the developing countries and partly because their present level of per capita consumption of such foodstuffs is extremely low.

It is clear that this situation sooner or later becomes untenable for most of these countries. Accordingly, they will be forced to grow such crops as are connected with considerable comparative disadvantages, in the place of those which would be theoretically much more advantageous for them. This trend of development could be mitigated only by international agreements aimed at the "equalization of the comparative advantages".

### Growth Rate and Potential Energies

The potential energies have a decisive influence also on the rate of economic growth. National income and the rate of its growth are, naturally, the resultant of aggregate phenomena, their changes result from many economic factors and processes. It is therefore not easy to determine the order of magnitude of the influence exerted by the potential energies themselves on the growth rate, apart from the other phenomena of economic life. In fact, irrespective of other circumstances, this task is made difficult because the potential energies, when wholly or partly exploited, become organic parts of the economic processes and actions and can no longer be analysed separately.

Like the other phenomena and processes of the economy, so the growth rate, too, reflects the relation of the forces in the economy reliably only within a medium- or long-range period. For a short time, the growth rate can be "inflated" to the expense of economic equilibrium. There is an objective interrelation between accumulation and growth rate. By increasing the investments—provided that gross mistakes are not committed—the rate of growth can almost always be accelerated, even when only a fraction of investments rests on previous savings, and their bulk is being made at the price of a temporary withdrawal of material means. These means, however, must be returned to the economic circulation in some form. When, owing to erroneous anticipation or unforeseen events, the material means are withdrawn from the economic circulation or cannot be returned in due time, then shortages and a general disequilibrium will set in. The shortages must sooner or later be mastered in some form, but the government may be tempted to seek a temporary but dangerous "solution" by increasing the amount of currency in circulation. Another way of transitionally restituting the equilibrium consists in contracting foreign credits. (We shall return to this problem in Chapter 8.)

In a medium- or long-range period, the consequences of disequilibrium will assert themselves more and more vigorously either in the form of an inflation or in the deteriorated conditions of contracting foreign credits. Therefore it becomes sooner or later imperative to restore the equilibrium by more realistic measures which involve a retardation of growth and, under adverse conditions, result even in stagnation or recession.

Nevertheless, it is indisputable that if the developing countries want to liquidate their economic backwardness, they must attain a high growth rate, even at the expense of a "permissible maximum" of disequilibrium for transitional period. It is common knowledge that the growth rate must attain at least an annual 5 to 6 per cent. (Similar targets are set for the development decade by UNO.)

The capital-extensive type of growth, however, obviously involves a relatively slow growth rate. With this growth type, employment increases rapidly—and this is necessary and reasonable—but since, in lack of capital, the technological equipment of labour is low and outdated, its productivity will rise but slowly, and surpluses to be accumulated will be comparatively small. This, again, restricts the possibilities of further investment.

In such circumstances shortage of capital is a serious obstacle also to the exploitation of potential energies. Its effects, however, are different as regards the production of industrial raw materials and agriculture. The exploration of the treasures of the earth and their economically efficient exploitation require a large number of qualified specialists (one of the gravest bottlenecks of a developing economy), on the one hand, and a certain amount of investments, on the other.

The availability of several important industrial raw materials within the country is, of course, a great asset, yet their exploitation requires means in which there is a shortage. Beside qualified experts, foreign currency is also a limiting factor since most of the productive equipment must be imported. At the beginning of the growth process, shortage of foreign currency is almost inevitable because neither

the backward agriculture nor the still underdeveloped light industry can provide sufficient export surpluses.

The situation of the economic leaders is made even more difficult by the fact that, even after having mastered the problems of starting or extending domestic production, they are still up against the difficulties of conquering foreign markets for the product. Namely, the distribution of the raw-materials supply of the non-socialist world is concentrated in the hands of a few monopolies. Moreover, technological progress increases the possibilities of substitution.

Hence, keeping in mind all circumstances, such as shortage in capital, in qualified experts, in foreign currency and in marketing possibilities, the most adequate solution seems to consist in some forms of international co-operation, that is, either with an interested enterprise in a socialist country or with a capitalist enterprise offering relatively favourable conditions. Such an association should be envisaged for a definite period, and the government should reserve optional rights to take over the shares held by the foreign party. The launching of raw-material production under such conditions is useful and will accelerate the rise of the national income.

Yet this solution variant—even if we disregard the possible consequences of an association with a capitalist enterprise—involves several difficulties. There exist variants and alternatives of this solution but, for an underdeveloped country, alternatives are, as a rule, not between “good” and “better” but between “unfavourable” and “less unfavourable”. Let us, at any rate, examine the effect of our variant quoted above upon the home economy and its consequences.

a) The growing expansion of basic materials for the heavy industry results only in the increase of exports, because these products are not yet utilized at home. Thus, this type of expansion has but a small effect on the domestic economy, for lack of closer relationships. Accordingly, the extension of raw-material production achieved through foreign association remains a kind of “enclave”, a foreign body in the growing and developing national economy. This feature is enhanced when proceeds from exports are used exclusively to buy capital goods for the development of the same exploiting industry. In this case foreign capitalists can make investments of a labour-saving nature, replacing labour by capital even when this is not absolutely necessary. The situation improves when part of the export proceeds can be used by the government for buying capital goods necessary for the development of other industries or of the infrastructure. State investments of the latter kind are particularly important in the developing countries, because their economic growth requires great government investments in transportation and other parts of the infrastructure.

b) The imports of capital goods serving the development of industries other than exploiting raw materials should be directed towards ensuring the commodity exchange between agriculture and industry, between villages and towns. For instance let us assume that most of the textile goods are produced by handicrafts and small private plants. This is acceptable from the point of view of employment policy but the problem still remains that, in this case, the government does not dis-

pose of a sufficient quantity of "exchange commodities", that is, such as could be sold to the rural population at adequate prices in order to match their purchasing power obtained from the sale of agricultural products to the government. This situation may be dangerous because the shortage or lack of exchange commodities may induce the government to use force in order to compel the rural population to the delivery of their products; and this will diminish the interest of agricultural producers, thereby putting a brake on the desired growth of agricultural production. It seems therefore reasonable to use part of the foreign currency earned by exporting raw materials for laying the foundation of a state-owned textile industry. The development of this industry is extremely useful for the economic circulation, especially when textile industry can be based on domestic raw materials, i.e. if wool production already exists or can easily be projected.

Owing to such activities, it becomes possible

- to replace a large part of the imports by domestic goods (in most developing countries the share of textile goods in total imports is around 20 per cent; and in view of the rapid growth of the population the absolute order of magnitude and rate of the imports obviously continue to increase if domestic production fails to develop);

- to concentrate part of the textile industry in the hands of the government, thus increasing the accumulation at its disposition;

- to strengthen the contacts between domestic agriculture and industry by organizing the domestic production and processing of cotton, wool, etc.

c) Further efforts should be made to extend the participation of foreign countries, in addition to raw-material production, also in the production of semifinished and finished goods. This task—theoretically—is subsequent to the establishment of the textile industry since at the beginning there is small domestic demand for industrial products other than textiles. In practice, however, it may occur that an advantageous agreement can be concluded regarding the production of such goods, prior to the development of the textile industry. With respect to a few selected industries the government may avail itself of such opportunities, provided that the main targets of its policy, in particular the development of the domestic market and of the exchange of commodities between towns and rural districts, do not suffer from this. If the foreign party to the association is ready to respect the internal order of the country and recognizes the sovereignty of the government also in respect of economic control, an agreement of this kind is advantageous for the developing country, since it ensures credit, technological development and foreign markets. It is to be hoped that, sooner or later, the development of the internal economy will create demand for the industrial products in question, industries producing them will contribute to economic growth, compensating for their requirements of capital, infrastructure and state subsidies.

Clearly, the existence and exploitation of potential energies accelerate economic growth. Their exploitation, however, is not purely a matter of technology. Economic growth is an extremely complicated process, and therefore a long-range conception of economic policy should reckon not only with physical quantities but

also with the complexity of processes, effects and reactions. All efforts aimed at increasing production require material resources which must be withdrawn from other purposes. The extra amount of products thus obtained will be marketed more or less successfully, and their entering into economic circulation sets in motion an intricate system of relations and contacts between the participants of the exchange (in the social and the individual sense of the word), and these, in their quality of producers, may take various decisions. This complicated system of relations, processes, effects and reactions is bound to bring about some kind of economic growth, either maintaining or disturbing the general equilibrium.

Since growth, as has been pointed out, should be achieved in equilibrium, all economic decisions—including those referring to the development of the potential energies—should be made with due regard to the requirements of equilibrium. These requirements, however, are complicated by the fact that the economic energies have a stimulating effect, setting in motion other energies. It may be said in general that, other conditions being virtually identical, it is more correct to invest in industries which have a stimulating effect on other industrial branches.

With due regard to this "induction effect" we have already pointed out that in the course of organizing the production of finished goods in the developing countries priority should be given to the textile industry. The products of this industry permit the expansion of the commodity exchange between industry and agriculture and impart new stimuli to agricultural production. This contributes to the integration and gradual development of the domestic economy.

### The Effect of Potential Energies on the Relations of the Economy to the World Market

Finally, the potential energies exert an influence on the connection of the economy with the world market. Such connections constitute the neuralgic point of any developing economy. It is obvious that the underdeveloped state of a country is the consequence of the existence of more advanced countries, and therefore it is felt mainly in the country's relationships with the more advanced, economically stronger countries. The exchange of goods materializes through such commodities as truly express the differences in the production conditions and the economic power relations of the participants. That is why the rich countries become richer and the poor ones poorer even when, formally, equal values are being exchanged, as will be demonstrated later in detail.

Part of the potential energies help the developing countries to expand their connections on the world market. The largest part of their agricultural exports consists of goods produced on the basis of their comparative advantages inherent in the climatic conditions. Some of their raw materials were exported already prior to the beginning of their economic growth (more precisely, before their independent national economy was born). In most of the developing countries the exports of the tropical products and of some industrial raw materials have acquired such a

role within the national income and have involved such specific phenomena (monoculture in agriculture; branches of raw-material production without any economic relationship to other branches of the economy) as have turned the national economy export-oriented. This means that, in most developing economies, exports play a very important or even decisive role and that they are overconcentrated (i.e. consist of but a few kinds of products) and that the actual marketing possibilities of these products basically determine the economic equilibrium, the possible trends in development and the changes in the standard of living of virtually the whole population.

The growth process, however, creates new needs which the domestic production cannot satisfy. Hence the economy becomes also import-sensitive, i.e. imports grow more rapidly than does the national income. The chronic tensions of the balance of trade and payments compel the economic leadership to raise the exports. This is rather difficult in a traditional structure, since the imports consist of inelastic goods. In these circumstances many countries start extracting new kinds of raw materials, growing new agricultural crops for export, which again increases the sensitivity of the economy to the world market. It should be kept in mind that the internal cohesion of such an economy is insufficient because of the lack of integration either between regions or between the various sectors. Economic leadership, then, should endeavour to achieve harmony between two requirements: the equilibrium of the balance of payments (or rather its maximum permissible deficit) and the integration of the domestic economy. If the export branches fail to give a sufficient stimulus to the other sectors, the internal development remains uncertain, even though exports may rise.

When efforts are made to develop the exporting branches, they tend to withhold most of the available capital, to attract the best experts and to increase the purchasing power. But, exactly owing to the capital-attracting effect of the export branches, domestic production cannot match the growing purchasing power of the increasing population. This, combined with the growing needs of the state apparatus in import goods, must lead to increased imports, that is, the sensitivity of the economy to the world market will be greater and the possibility of achieving an equilibrium in the balance of payments, smaller. In other words, in lack of stimulating forces within the domestic economy, capable of improving the economic circulation, this will repeat itself under gradually deteriorating conditions.

The oversensitivity of an economy to the world market is a disadvantage not only because the world economy is an independent variable from the point of view of the national economy, but also because this kind of sensitiveness derives not from a sound expansiveness of the internal economy but from its weaknesses, from the underdeveloped state of its market and from its shortage in production capacities. We have already pointed out that, unlike the economic growth that took place in Western Europe during the 19th century, in our days the dynamics of a developing country cannot concentrate on exports, since virtually all net proceeds resulting from foreign trade profit are being scooped by the industrially advanced countries. It is also clear that a strong foreign-trade activity can be wholesome and be con-



tinued with gradually improving results only when born from the organic internal relationships of the economy and not forcibly developed under an emergency situation.

Also from this point of view it seems most advantageous to exploit the potential energies in a manner by which the growing export proceeds are used initially for creating the conditions of developing some selected industrial branches suitable for saving imports and promoting internal integration. Only after this should the systematic building up of the industries processing the domestic raw materials be started. An adequate association with foreign capital may be advantageously combined with this type of industrial development since, as has been pointed out before, by this the economy obtains capital, qualified experts, a higher technical level and foreign markets. The process of economic growth will in due time create an internal market, and thus the new industries become organic components of the national economy.

Similar problems crop up also in agriculture. Here, again, two requirements should be co-ordinated: to increase exports and to provide the rapidly growing population with food. These two requirements usually clash, since the further expansion of the export crops demands plenty of capital, land, labour and concentrated organization. And, though it is probable that, at the price of such inputs, the production for export can be increased either in the traditional crops or by introducing new ones, it may also occur that the larger export surplus involves a fall in prices, whence the foreign-currency income fails to increase or else its rise lags far behind the growth of the input.

When production for domestic purposes is stagnating or is low to rise, it becomes inevitable to import growing amounts of food. The balance of agricultural exports and imports then deteriorates because, as we have seen, the exports of tropical agricultural products collide with an inelastic demand, whereas the import needs grow elastically in a country where living standards are low and the population is rapidly multiplying.

In agriculture, too, production for exports and the supply of the population should be co-ordinated. The exaggerated favouring of exports and the neglect of production for domestic purposes finally result, against all intentions, in the deterioration of the balance of payments, further in the uncertainty of domestic supply and in the loosening of the economic links between industry and agriculture. When these ties are severed or loosened, no real domestic market will survive or develop because in this case both the agricultural producer and the industrial worker (engaged in raw-material production) produce for foreign countries and must be supplied with imported consumer goods. No national economy can develop in this manner. In the course of developing the potential energies it should be kept in mind that the chief aim is to create a rapidly growing and organically developing national economy.

## CHAPTER 7

# Sources and Possibilities of Accumulation in the Growth Process

## Financial Policy

In order to induce an economy to shift from a *static state* (when economic circulation is repeated under approximately identical circumstances, that is at the same level) into a *dynamic state* (when circulation is repeated under improved circumstances and at a gradually rising level), the first step to be taken is to increase accumulation. Accumulation is based on savings, but not all savings result in accumulation. Saving is a very heterogeneous and nebulous notion: it includes the pennies saved by the workers' families and the vast reserve funds of the gigantic enterprises alike.<sup>1</sup>

With the low standards of living and with the relatively restricted scope of money in economic circulation, the savings play a very limited role in the developing countries. (We shall dwell on this role later in this chapter.) The government must, obviously, pursue a well-weighed financial and state budget policy and establish a system of measures with due regard to all the different reactions of the various economic sectors to be able to promote the growth of accumulation.

Any accumulation, as history shows, requires sacrifices from the working masses. In capitalist societies, however, these sacrifices, objectively necessary for the acceleration of economic growth, serve also the enrichment of the ruling class of capitalists and the strengthening of their power. In most countries, in the first period of capitalist development, the real wages decreased and the workers' share of the national income went down to the benefit of the capitalists. The decreasing proportion of the real wages changes only when the amount of available goods can no longer be bought by the population at its existing level of purchasing power.

The socialist type of accumulation also requires sacrifices from all layers of the working masses, but the sacrifices are more evenly distributed, and nobody becomes rich or acquires economic privileges at the expense of sacrifices born by others. One of the sources of accumulation in the socialist economies consisted, through a certain historic period, in the compulsory delivery of agricultural products to the state at prices lower than their value; another was the taxation of enterprises,

<sup>1</sup> S. Kuznets and H. S. Houthakker have recently made efforts to give a more accurate definition to this concept. According to Houthakker, the greatest item among private savings are the reserves of the companies. The personal savings constitute the other large group of the private savings. Included in the latter are also the money reserves and working capital held by the self-employed merchants, private undertakers and farmers.

mainly in the form of turnover taxes.<sup>2</sup> No doubt, the nationalization of private industrial enterprises and the establishment of new state-owned plants provided an additional income for the government promoting the growth of accumulation. Yet, the new industries did not produce real surpluses since productivity was low and production was raised in an extensive manner (i.e. by increasing employment). Hence, accumulation was achieved essentially to the detriment of consumption and thus real wages and incomes showed a temporary fall. This period, however, lasted only for a few years, and later on, owing to the strengthening of the economy, the real wages and incomes began gradually to rise.

### Absolute and Relative Obstacles to Increasing Accumulation in Developing Countries

Accumulation in the developing countries is, obviously, more difficult than in the capitalist or socialist countries of our days. Its increase is inhibited by many absolute and relative obstacles, mainly by the following.

a) Owing to the underdeveloped state of the forces of production, an overwhelming part of the national income derives from agriculture and/or mining. A large part of the population lives in subsistence economy, i.e. is not included in the circulation of goods and money. There are several countries in Africa where subsistence economy includes 70 to 80 per cent of the population, permitting for them but occasional relations with market economy.<sup>3</sup> Nor are the small entrepreneurs capable of achieving a significant accumulation. Another difficulty is that the real incomes are low and extremely unstable. The instability of the incomes is a problem not only to individuals and small entrepreneurs but also to the state whose incomes may fall abruptly when harvest is bad or world market prices fall.

b) Of their lower national income, the developing countries can attract, in the form of taxes, a smaller portion than it is possible for industrially advanced countries where economic circulation takes place preponderantly in money forms. According to N. Káldor's data,<sup>4</sup> 8 to 15 per cent of the national product is collected in the form of taxes in the developing countries while this figure amounts to 25 to 30 per cent in the industrially advanced ones. John Adler's figures<sup>5</sup> are somewhat different: the average share of the state in the national income through the years 1954-57 was 15 per cent in the developing countries and 22 per cent in the ad-

<sup>2</sup> Among the sources of accumulation we may mention the "plan loan" which, in its form, is a voluntary contribution to development and, in content, a kind of forced saving. This type of saving was later discontinued, and it was decreed that the equivalent of the bonds would be repaid during a prolonged period.

<sup>3</sup> G. Benveniste and W. E. Moran, Jr.: *Handbook of African Economic Development*. Praeger, New York 1962.

<sup>4</sup> N. Káldor: Will Underdeveloped Countries Learn to Tax? *Foreign Affairs*, No. 2, pp. 410-419. New York 1963.

<sup>5</sup> J. Adler: *Fiscal Policy in a Developing Country*. 1960. (Mimeographed, IBRD.) Table 1.

vanced ones. According to Adler's data, there are essential differences between countries (see the Table below).

*Government's Share in the National Product*  
(average of the period in question)

Countries	Budget years	Government income	Government total expenditure
		in percentage of national income	
<i>Low-income countries</i>			
<i>Africa</i>			
Egypt	1954-56	21.06	21.12
Ghana	1952-58	12.21	14.46
<i>Asia</i>			
Burma	1954-57	20.09	23.11
Ceylon	1954-57	20.23	21.20
India	1956-58 A	7.32	11.66
	B	5.60	9.20
Iraq	1953-57	31.42	25.71
Israel	1954-59	20.13	29.61
Japan	1954-58	13.28	13.17
The Philippines	1954-58	9.35	10.35
<i>Latin America</i>			
Argentina	1953-58	9.58	13.14
Brazil	1953-58 A	8.78	10.29
	B	5.71	6.51
Chile	1953-58	13.03	13.96
Columbia	1953-57	9.85	10.35
Costa Rica	1953-57	12.68	12.09
Ecuador	1952-57	9.97	10.66
Guatemala	1953-57	13.47	14.87
Honduras	1952-57	8.59	9.47
Mexico	1953-57	8.82	9.91
Panama	1953-56	16.63	18.33
Peru	1953-56	13.86	14.48
Venezuela	1953-58	18.91	16.31
<i>Europe</i>			
Greece	1952-57	16.01	19.39
Spain	1952-57	12.48	12.45
Turkey	1954-58	12.74	14.44
<i>Average of low-income countries</i>		14.66	16.09

Countries	Budget years	Government income	Government total expenditure
		in percentage of national income	
<i>High-income countries</i>			
<i>North America</i>			
Canada	1953-58	15.75	16.01
USA	1954-57 A	16.53	16.64
	B	8.07	8.77
<i>Europe</i>			
Austria	1953-58	26.78	27.15
Belgium	1953-57	17.51	20.88
Denmark	1954-59	17.03	17.47
Finland	1954-57	24.63	25.30
France	1953-57	19.81	21.61
German F.R.	1954-59 A	14.41	14.39
	B	14.90	11.97
Italy	1953-58	17.05	19.61
Netherlands	1954-58	21.44	22.30
Norway	1953-58	19.34	18.35
Sweden	1954-58	21.62	22.75
Switzerland	1954-57 A	8.20	7.33
	B	7.01	6.55
United Kingdom	1954-59	26.25	27.32
<i>Oceania</i>			
Australia	1954-58 A	20.29	17.44
	B	8.00	12.78
New Zealand	1953-58	26.64	22.41
<i>Average of high-income countries</i>		21.95	22.31

A = Central government.

B = Local government.

For obvious reasons there are essential differences in the utilization of the budget incomes between the developing and the advanced countries. In the former, the investments constitute a greater part of budget expenditure than in the latter, as shown by A.R. Prest's<sup>6</sup> computations: 25 against 6 per cent.

The problem of taxation will be dealt with later in this chapter. Here we just want to point out the very intricate political problem that the government of a new independent country must extend taxation and make it regular. In the colonial period taxation, as against other forms of exploitation, like cheap labour and one-sided economic connections, played an insignificant part.

<sup>6</sup> A.R. Prest: *Public Finance in Underdeveloped Countries*. Praeger, New York 1962. For his computations, the author relies on the data of the *UN Statistical Yearbook*, 1959.

c) Another obstacle is that the state has no, or hardly any, profitable undertakings. We have touched upon this problem in connection with the potential energies, and now we shall deal with it from the angle of the budget incomes. It is well known that for the past one and a half decades profit has shifted from raw-material production toward the manufacture of finished goods. In many West-European countries where part of the raw-material production has been nationalized, the state-owned industry copes with considerable difficulties and even with deficit in some countries. The deterioration of the terms of trade for raw-material production is also common knowledge. It is therefore reasonable to establish lucrative state-owned manufacturing enterprises in order to raise the state incomes. The textile industry is of particular interest in this respect.

There are relative obstacles in the way of increasing accumulation. By relative obstacles we understand such social, political and economic conditions as prevent an available surplus income from turning into accumulation (i.e. from being invested in the appropriate place) for the national economy in question.

The most typical relative obstacles are the following:

a) In some countries (Latin America, India, etc.) the feudal layer is not disposed to invest; it keeps its wealth thesaurated and uses its surplus income for fancy consumption. The negative attitude of the feudal layers is a serious problem for economic growth because this relatively narrow stratum disposes of a very large portion of the national income.<sup>7</sup> (In Latin America, for instance, 5 per cent of the population has the benefit of 30 per cent of the incomes.)

b) The foreign capitalists expatriate a large part of the profit. In other words, they export capital from a country poor in capital. Between 1950 and 1961, for instance, the balance of capital flows—the import of capital to, and the transfer of interests and profits from, the developing countries—hardly attained \$ 2,000 million but, for Latin America for instance, it turned passive.<sup>8</sup> The role of loans is, naturally, much more positive partly because the time when the loan is to be returned is determined and partly because only the determined amounts of the amortization and interests are being withdrawn from the debtor country. In the case of capital invested by foreigners there is an undetermined amount of capital export against a determined amount of capital import. This, alone, may upset the equilibrium of the balance of payments after a certain time.

In order to counteract the income-absorbing effect of foreign capital it is not enough to impose taxes on profit. Profit is an aggregate indicator developing under the effect of so many factors and affected by so many circumstances that its mag-

<sup>7</sup> We know from Ignaczy Sachs that, according to Indian financial circles, 105 million ounces of gold and 4,325 million ounces of silver i.e. altogether fifty thousand million rupees have accumulated and frozen in by the well-to-do rural classes. This sum makes up 50 per cent of the investments earmarked for the third five-year plan. In the Arab countries a treasure equivalent to one-tenth of the national income has accumulated in the hands of the land-owners. [I. Sachs, *op. cit.* (p. 56).]

<sup>8</sup> R. Prebisch: *Report of the Secretary General to the Geneva Conference of World Trade and Development*. UN, Geneva 1965.

nitude can always be diminished by adequate accounting techniques. Foreign enterprises are usually acting in more than one country, and withdrawals of capital can take place in most cases in the form of real or fictitious accounts.

c) The structure of the existing stock of invested capital is, as a rule, not favourable to economic growth. The problem of structure mostly consists in the abundance of trade capital (used, in the first place, for short-term crediting of foreign-trade transactions) and in the scarcity of permanently engaged capital that could be used for crediting agricultural and industrial investments.

This is due to the former colonial conditions and to the raw-material producing role of the developing countries, but is also connected with the survival of the traditional mode of production which, by its very nature, offers a hunting ground only to commercial and the usurers' capital. The agencies of the European banks in the developing countries finance mostly foreign trade. In the Sudan, for instance, six foreign banks had their agencies as late as in 1960, the largest of them being Barclays, London. This bank had under its control almost the entire foreign trade so that the central bank of the Sudan had no supervisory jurisdiction over it (this was the situation in 1962). At the same time, no foreign capital could be found for creating a specialized industrial bank.<sup>9</sup>

With time, considerable stocks of domestic capital accumulated in many places in the commercial sector. In certain states, mainly in the Arabic countries, a network of banks in domestic ownership and consisting of many units has developed to finance trade, chiefly foreign trade. Yet the utilization of these capitals for industrial or agricultural purposes has not yet been organized.

In Lebanon, for instance, large monetary funds have accumulated but, beside the many commercial banks, there is no development bank that would draw into a credit organization the existing banks in order to serve economic growth by banking methods.<sup>10</sup> Thus in the sectors of production there is a serious shortage of capital, and in agriculture not only the fixed but also the working capital is lacking. In addition to this, credit is granted only to capitalistically organized large estates, since the precapitalistic form of landed property itself is an obstacle to credit.

The lack of capital in the industrial sector is one of the reasons why domestic industry develops so slowly. The point is that for the import of consumer goods some commercial credit is always available, whereas for the creation of domestic productive capacities no credits are granted, even when the comparative costs would make it reasonable. (Needless to say that, the import-replacing domestic industries should be created even though producing transitionally at higher costs than abroad.)

From the absolute and relative obstacles to increasing accumulation it follows that the ratio of gross capital formation to the national income is significantly lower

<sup>9</sup> (T. Fedorov) Т. Федоров: *Финансы и кредит Судана* (Finances and Credit in the Sudan). Госфиниздат, Moscow 1962.

<sup>10</sup> R. Debono: *Adapting the Means and Methods of Financing to the Requirements of Development* (Egypt, Syria, Lebanon, Iran). UNCSAT Conference, Geneva 1965. E/Conf. 39/H/30.

in the developing countries than in the advanced capitalist and the socialist countries, the respective figures being about 15 per cent and something over 20 per cent which may attain, in rapid growth periods, as much as 25 to 30 per cent.

In certain developing countries the ratio of the gross domestic capital formation is still lower: about 10 per cent in Chile and Pakistan, around 9 per cent in the Republic of the Philippines. Some countries, for instance India, could attain 15 per cent only after a decade's serious efforts.

The ratio of domestic capital formation to be considered as the threshold of economic growth is widely discussed in the literature. It is generally set at above 10 per cent.

In our opinion, the height of the ratio (for its effect on growth) can hardly be assessed without knowing its trend. A ten per cent ratio, by itself, would seem to be insufficient for launching economic growth, not to speak of its acceleration. Yet, if it belongs to a constantly increasing time sequence and if there are reasonable hopes for its increasing in the future, it should be considered as temporarily satisfactory.

When formulating this statement we, naturally, must take into account also the value of the "incremental capital/output ratio", that is, the percentage of the national income which has to be invested in production in order to attain a one per cent rise in national income. This ratio widely differs in the various countries. According to many authors, it is usually around 2.5 (i.e. a one per cent rise in the national income can be achieved when 2.5 per cent of it are invested), yet we have reasons to believe that this ratio is higher than that in most developing countries. It should be remembered that the investments of a developing country are coupled with high requirements as to the infrastructure, and these requirements are increased by problems of the integration of the national economy. (We shall come back in this chapter to the factors influencing the value of the capital coefficient.)

It is quite clear, however, that in the case of a low accumulation rate a less developed economy can never catch up with the more advanced economies where the ratio of capital formation is higher.

### How Can Internal Accumulation Be Increased?

In the following we shall deal with the modes of increasing domestic accumulation. For this, evidently, an economic environment is necessary in which the participants of economic life (individuals and undertakings) become interested in the augmentation of savings and investments, and adequate government measures and regulations also tend to promote capital formation.

In order to create such an economic environment, an active and expansive financial policy should be introduced which

- increases, with due precaution, the quantity of money in circulation,
- enhances the share of the state sector in the total circulation of the means of payment,



– acts in such a way that the capital available in the private sector of the money market is made interested in the investments earmarked in the central plan of development.

The increase of money in circulation is a precondition of switching over from subsistence or natural economy to market economy. Economic historians say that one of the factors that has prompted the development of European economic life in the 16th and 17th centuries was the increasing amount of gold and silver shipped from America to Europe.

In the economic life of the developing countries money plays an increasing role and acquires added relative importance against the traditional natural economy; yet the developing of credit is still lagging behind. Paradoxical as it may sound, the turnover of the means of payment must first be increased in order to be decreased later on by taxation. When production and consumption rise parallel to the expansion of the sphere of money economy (and, indeed, partly owing to it), the possibilities of taxation also increase. In order to be able to husband the economic resources, these resources must first be brought into existence, then—by expanding the sphere of money economy and through the possibilities of redistribution inherent in taxation—made mobilizable and transferable so that they could be redistributed as the needs require.

The expansion of production and circulation, i.e. the stimulation of economic activity, the launching of the growth process constitute the first steps in financial policy, too. When taking these steps, it should be remembered that in a multisector economy the state has to act partly as the biggest entrepreneur and partly as an initiator of the activities in the other sectors in the interest of all. This consideration must prevail also in the approach to the budget equilibrium which can temporarily be sacrificed (for a short period) in the interest of stimulating growth. If the budget deficit is associated with real economic operations, the profits of which will appear on the private money market, then new tax resources become available, permitting later to cover the deficit and to refund the loan raised by the government from the central bank.

It is necessary to expand the circulation of the means of payment, not only for considerations mentioned above but also in order to accelerate the development of certain patterns of behaviour indispensable for a more advanced economy, for instance the ability to calculate in terms of money, to anticipate the expectable consequences of economic decisions etc. As shown by Raymond Aron<sup>11</sup>, economic activity in simple societies is not kept separate from other activities because the aims and means are determined with absolute validity by custom, beliefs and religious precepts. It is a sociological fact that populations living under a joint family or clan system and thus enjoying some kind of social security—however modest its level may be—are less inclined to understand the concepts and methods of modern economic life (as, for instance, insurance).

<sup>11</sup> R. Aron: *Dix-huit leçons sur la société industrielle*. Gallimard, Paris 1963.

But the expanding circulation of money has also an inflationary effect. This effect is limited if it results in an increased production of industrial and agricultural goods. Even then, there will be a "phase shift" between them since the growth of commodity production follows the currency expansion with a certain time lag. If, however, the increase of production lags behind the currency expansion by more than a tolerable time shift, i.e. the targets of the national-economic plan are not fulfilled in time, a "shift into lower gear" becomes necessary, i.e. measures should be taken to restore the equilibrium. Neither inflationary tendencies nor the actual danger of inflation mean, however, that the expansion of money circulation can be avoided or that an old-fashioned deflation policy should be adopted in the financial policy of the developing countries. Deflation in a developing economy has only negative consequences; it makes the launching of economic growth impossible.

It should be remembered in this connection that there are two fundamental types of inflation (and, of course, many variants within them). The "classical" form of inflation occurs on the market of consumer goods when it is invaded directly and permanently by a large amount of money without sufficient goods coverage. Classical inflation is the most violent during and after wars because of the large amounts of money that has come into circulation for financing the output of arms, munition, etc. that is, of products not appearing on the markets of either consumers or investors. Inflation may also take place when the outflow of consumer credits is disproportionately great (the exaggerate expansion of instalment deals, an over-size amount of house-building loans, etc.). At any rate, inflation starting on the market of consumer goods is unambiguously harmful, and it should be avoided with as much care as possible. From this standpoint, it is not reasonable to issue large amounts of house-building credits when the investment level is relatively low.<sup>12</sup>

### Harnessed Inflation and Communal Investments

The other type of inflation is connected with the quantity of money issued for public investments. Traditional financial science unanimously condemned also this form of inflation, because it equally has the adverse effect of decreasing the real purchasing power of those with fixed incomes, whereas the advantageous effects of the public investments (especially of those of non-productive character) are slow to assert themselves. Hence the fall of the standard of living becomes permanent.

This view originated from the old concept of the state, failing to take into account the features of an "entrepreneur-state" so characteristic of the developing countries. The partisans of this concept look upon the state only as a consumer of goods or at best as the builder of the infrastructure. Therefore they consider a

<sup>12</sup> According to the *UN Yearbook of National Accounts Statistics, 1962*, Nigeria allocated 42 million pounds to housing out of a total investment of 122 million in 1957.

shift in the amounts of purchasing power in favour of the state as a disturbance in the equilibrium between consumption and production. But once the state also becomes an entrepreneur, the negative or positive sign of the process depends on whether the investments (i.e., the monetary expansion on which they rest) are or are not followed by a rise in production—mainly of consumer goods.

A prudent wage policy is able to counteract the dwindling of the purchasing power of nominal wages and salaries caused by inflation. What is of importance, on the other hand, is that the rise in prices of the consumer goods has a stimulating effect on domestic production without, however, withdrawing commodity stocks from the foreign trade, as it would be the case in an advanced capitalist country. (This situation persists as long as the present export structure is maintained and the exporting sectors are virtually separated from the internal market.) Hence, a "harnessed inflation" is connected with investments, i.e. with the creation of new employment opportunities, and thus expanding employment may compensate for the stagnation or fall of the per capita real wages.

This process will have a positive or a negative sign depending on whether or not the loss due to the fall in the domestic purchasing power of the money is offset—within a medium period—by the stimulating effects obtained from growing employment and from the growth of production enhanced by the rising prices. If it is, then an inflation kept within strict limits may be useful for economic growth. If it does not, then inflation cannot be harnessed and will handicap economic growth.

During these intricate manoeuvres of economic policy, consumption credits must not be granted, not even credits for housing. Yet endeavours must be made to revert as much as possible of the amount of currency circulating on the consumer's market. To this end it is necessary to create an organization for collecting saving deposits. Then home-building loans can be granted up to the amount of the funds collected, and they should be granted under appropriate coverage prescriptions. By such actions thrift can be turned into a purposeful activity, enhancing the readiness of the population to economize. Namely, we cannot expect the population voluntarily to save a sizeable part of its income when only security motives are acting on it; voluntary saving must have some determined purpose in the first decades of expanding money circulation. Compulsory austerity, on the other hand, is known to result in a difficult political situation and is, economically, not efficient enough.

A housing programme relying on the savings of the population boosts employment and promotes the development of the various local industries producing building materials.

Traditional financial literature usually recommends two methods to curb inflation: the restriction of credits (mostly connected with a rise of interest rates) and tax rises. In a developing country, however, the policy of the interest rate has no particular significance, since no advanced capital market has developed, nor are there entrepreneurs whose investments could be substantially influenced by changing interest rates. On the other hand, there are no substantial stocks of al-

ready accumulated capital, the supply and demand of which would be influenced through interest rates; the problem consists in the accumulation of capital itself. In other words, it is not the "market" of credit that has to be influenced by government measures but the creation of its basis, that is, accumulation. Thus, the problem of increased taxation comes to the fore in the developing countries.

Inflation, naturally, affects the rate of currency, the balance of foreign trade and payments. Theoretically, inflation stimulates import and reduces exports. Yet in connection with inflation we have already pointed out that its effect on exports, when compared to the advanced capitalist countries, is rather restricted in the developing ones. These export mainly foodstuffs and raw materials the international demand for which is rather inelastic. On the other hand, the volume of exportable surpluses of these commodities is virtually independent of the extent of domestic consumption (which is, as a rule, negligible). Finally, in many cases there is no direct relation between the domestic costs and prices and the world market's price level, particularly when exports are in the hands of monopolistic organizations (marketing boards, etc.)

The import-stimulating effect of inflation asserts itself, however, also in the developing economies. It can be checked by applying various economic and administrative means:

- a) the limitation of imports by introducing import permits and determining contingents;
- b) establishment of state-owned import enterprises;
- c) economic measures for making domestic capital more interested in creating import-saving industries than in financing imports.

It is obvious, however, that an expanding circulation of money, even in the presence of a far-sighted economic policy, is pregnant with inflationary tendencies, and even with the danger of actual inflation. But financial policy is not a self-contained category with independent targets. The most stable financial equilibrium is not much worth if it is achieved at the price of economic stagnation. The value of a financial policy depends on how far it serves, furthers and stimulates a sound, progressive economic policy. In a developing country, the primary task of economic policy, the fulfilment of which will decide the future of the nation and the fate of the political regime in power, is economic growth. If the requirements of growth temporarily render uncertain the financial equilibrium—or even that of the balance of foreign trade and payments—the risk should be taken because stagnation and the maintenance of the old economic circulation are more harmful than any risk incurred: it is equivalent to the surrender of national independence and of the moral sense of independent national existence.

### Expansive Financial Policy

The type of financial policy incurring certain risks in the interest of economic growth (making an advance on later production), creating credit, collecting and transforming capital is referred to as "expansive". Such a policy is one of the ma-

for preconditions of expanding production, of creating conditions for a homogeneous commodity and money economy. The growth of production, as referred to also by Chandavarkar,<sup>13</sup> involves an increase in the amount of money because

- rising national income increases also the demand for money,
- the money circulation extends to domains formerly unaffected by it,
- the rise in the per capita real income elicits different reactions in the various social layers, increases the needs for security funds of the high-income strata and of funds used for speculation by tradesmen, and capitalists.

Having outlined the fundamental principles of a financial policy desirable in the atmosphere of economic growth, we wish to dwell on the questions of raising the state incomes.

Of the serious obstacles to raising budget incomes I wish to underline the following two:

a) Taxation has no significant traditions in the developing countries since the former colonial exploitation relied chiefly on cheap labour and one-sided economic relations.

b) Under the conditions of advanced market economy taxation is a very effective means of raising budget income and controlling the economy but in the developing countries part of the economy has still not risen above the subsistence level.

Various economic and political problems arise in connection with the effectiveness of taxation. An economic problem is that the major incomes and fortunes—which could most easily be taxed—can be found in trade, and are accordingly mobile and ready to escape abroad etc. (Let it be mentioned in parentheses that the interested developing countries ought to co-ordinate their financial policy concerning the large enterprises having branches in several countries. Failing to do so, these enterprises easily conceal their profits, do not pay sufficient taxes and outwit the governments.) Another problem is the well-known fact that the tax offices of the developing countries do not possess sufficient experience.

A possible political difficulty is that the introduction of a regular taxation imposed on the large masses of the population—living at a low standard—may lead to conflicts, dissatisfaction and disappointment. The masses are not aware of the intricacies of social and economic development and will draw their very simple and logical conclusions from the assumption that their own government must not impose taxes on them when the colonizers had hardly levied any. It should be kept in mind that, within a short-range period, all open measures contrary to the immediate interests of the people are politically more dangerous than the concealed ones. The political difficulties can, however, be set off if

- the large masses of the population have confidence in the government,
- the masses are convinced that the burdens are equitably distributed among the various layers of the population,

<sup>13</sup> A. G. Chandavarkar: Einige finanzielle und monetäre Aspekte der Wirtschaftsentwicklung in Indien. *Konjunkturpolitik*, No. 2. Berlin 1964.

- political propaganda and agitation succeeds in convincing the majority of the population that the measures in question are inevitably necessary,
- the masses are convinced that the budget incomes are allotted by the government to useful purposes serving the national progress.

### Quantitative and Qualitative Effects of Taxation in Developing Countries

In respect of quantities, taxation comprises such questions as how high the revenue can be raised or how high the tax burden should be. In a developing country the most important aspect of the question is not the highest attainable revenue in the present but the dynamic trend of a given tax category in the future. Hence such sources of income should be created as are suitable for essential expansion in the future, as a consequence of the expectable economic development.

With the constant changes in the social and economic structure the qualitative aspects of taxation come to the fore. The economic character of the various direct taxes may be different: some are aimed chiefly at securing income sources for the state, others are rather instruments of economic policy. From among the indirect taxes, the export taxes represent typically and almost exclusively income sources, while the import taxes are efficient instruments of economic policy. If, as part of its efforts to maintain the economic equilibrium, the government wishes to reduce the import of motor vehicles, it will raise the customs tariff. If this measure is successful, the customs income must fall; if it remains high, it means that the measure has failed to achieve its purpose of restricting imports.

If the domestic industry is able to replace certain goods formerly imported, higher import taxes will be imposed on the commodities in question. If then the customs continue to yield high incomes, this means that the quality of the domestic products has not yet come up to the mark or else the consumers remain attached to the foreign merchandise by sheer force of habit.

Customs duty levied on petrol, on the other hand, is a typical income-raising factor since no one will lay up his car on account of a rise in the price of the fuel. If by raising the import taxes our purpose is to increase income, we must proceed from the maximalization of the revenue. This leads us to the problem of tax elasticity. When establishing the rates of such a tax or duty, the so-called "Cournot point" must be found, at which the taxed economic phenomenon is not reduced beyond an extent which would diminish rather than increase total revenue. An exaggerated increase of the rate of tax may reduce the revenue whereas a moderate increase may increase it considerably.

Among the qualitative aspects of taxation the assessment of the possibilities of shifting the tax burden should be mentioned. This is the case when the rich, the proprietors whose high incomes are meant to be taxed can, in one way or other, transfer the burdens to the poor. The endurance of the poorer layers being extremely restricted, the rise of taxes may create a politically dangerous situation. The

well-to-do layers (the representatives of the old ruling classes) have an essential influence on the masses with which they are in close connection and are able to conduct the argumentation on the transfer of taxes in their own favour.

In such circumstances it may happen that the poorer layers rise against the government and join the chorus of the rich in reprimanding the authorities or politicians which or who wanted to distribute the burden of development more equitably.

In the case of large estates, for instance, the land tax is immediately transferred to the tenant, aggravating his anyway precarious situation. Thus, state revenue may be increased, yet the situation becomes difficult politically and even economically because the small tenant has then even less possibility to undertake investments increasing the yields.

Both social and economic considerations seem to support the view that higher taxes should be levied on derived incomes than on primary ones in the developing countries. It is, for the time being, more important to stimulate such economic activities as create large amounts of material goods than to correct the distribution of incomes. Even the decisions concerning the choice of professions can be influenced by taxation methods. It is common knowledge, for instance, that the number of engineers, technicians and agronomists etc. is unjustifiably low whereas that of the jurists is very high among the intelligentsia. By imposing higher taxes on the lawyers the number of law-students can probably be reduced.

It is an essential constitutional question with several economic and political aspects how the jurisdiction in the sphere of taxation is distributed in a federal state between the federal (central) government and the regional authorities. In new-independent states whose cohesive forces are still limited, it is of particular importance for the federal government to make its priority prevail. It is undesirable, for instance, that the local governments should "sustain" the central government. Efforts should be made—although it cannot be achieved within a short time, for the power relations are a handicap in most cases—that the right of taxation (or of additional taxation) of the local governments should be restricted. It is of particular importance for the central government to reserve the right of decision in matters of utilizing the development budget in order to create a division of labour between the various parts of the country, in order to enhance integration and to develop a united national economy.

A proper taxation policy will have a direct bearing upon the launching of economic growth, on securing the necessary conditions and, consequently, on stepping up the rate of growth.

In the course of establishing the taxation system endeavours should be made

- a) to stimulate the exploitation of the existing production capacities and the creation of new ones;
- b) to incorporate the taxation system in the process of material goods production;
- c) to promote the transformation of subsistence economy into market economy;
- d) not to lower the standard of living of the large masses, but rather to put a brake on its rise; barring the taxes introduced for the equalization of social and

income differences, such new possibilities and opportunities should be evolved as will be offered to individuals and enterprises as a consequence of economic growth;

e) to differentiate taxation according to incomes, without tolerating the existence of privileged or overburdened layers;

f) to render a large part of the taxes imposed on the masses invisible, that is, to resort to indirect taxation (for instance, a turnover tax should be preferred to an income tax imposed on the workers);

g) to ensure an optimum yield in each tax category instead of imposing them on the basis of spectacular rates;

h) to ensure permanent and inexpensive methods of tax collection.

## Taxes and Duties in State Incomes

### *A) The Share of Direct and Indirect Taxes*

The major part of the revenue in the developing countries, unlike in the advanced ones, comes from direct taxes. According to J. Adler's data,<sup>14</sup> a comparison of the averages of the advanced and the developing countries yields the following picture:

Tax categories	Total tax revenue in percentage of total budget income in	
	developing countries	advanced countries
Direct taxes	27.8	44.3
Indirect taxes (of these: customs duties)	51.8 (29.0)	42.9 (11.5)
Other incomes	20.4	12.8
Total	100.0	100.0

There are wide differences in the individual countries: the extremes are represented by the United States where the share of direct taxes exceeds 80 per cent of the budget and by the Sudan where the indirect taxes make up 90 per cent of the budget. We quote J. Adler's data for each country to show the differences in the tax income structures (see Tables on pp. 179 and 180).

These tables convincingly show that the ratio of direct and indirect taxes depends not only on the economic standards but also on traditions. Characteristic, for instance, of the Anglo-Saxon countries is the high share of the direct taxes while in the Scandinavian countries, France and Switzerland—as in the developing

<sup>14</sup> J. Adler, *op. cit.* (p. 165).



countries—the indirect taxes dominate. Owing to the protection of domestic industrialization and to endeavours to achieve an equilibrium in the balance of payments, the customs duties play an important part in the incomes of the developing countries.

*The Share of the Various Sources of Income in Percentage of the Total Budget Income*

States	Fiscal years considered	Percentage of total budget income			
		direct taxes	indirect taxes		other incomes
			total	customs duties	
<i>Low-income countries</i>					
<i>Africa</i>					
Egypt	1954-59	18.82	43.24	...	37.93
Ghana	1952-58	11.47	66.27	64.7	20.76
<i>Asia</i>					
Burma	1954-59	27.33	45.39	27.4	27.28
Ceylon	1954-59	23.42	66.46	54.5	11.15
India	1956-57 A	21.96	53.28	29.1	26.00
	B	17.83	—	—	82.19
Iraq	1953-58	7.29	25.09	18.4	67.63
Israel	1954-59	37.15	48.67	22.3	14.18
Japan	1954-59	47.80	32.71	3.2	19.51
Philippines	1954-59	38.79	46.40	30.2	14.81
<i>Latin America</i>					
Argentina	1953-58	35.1	36.8	2.5	28.1
Brazil	1953-57 A	37.7	51.6	...	10.7
	B	60.7	19.8	—	19.5
Chile	1953-58	36.9	52.3	17.1	10.8
Columbia	1953-58	46.4	42.4	31.4	11.1
Costa Rica	1953-58	17.63	72.23	58.9	10.14
Ecuador	1952-57	13.1	78.6	43.1	8.3
Guatemala	1953-57	7.9	81.25	51.5	10.85
Honduras	1952-57	17.26	76.74	51.6	5.89
Mexico	1953-58	27.1	56.8	28.6	16.1
Panama	1953-58	22.0	47.4	25.4	30.6
Peru	1953-58	23.4	59.7	32.0	16.9
Venezuela	1953-58	26.9	27.6	13.4	45.5
<i>Europe</i>					
Greece	1952-57	17.4	54.2	21.3	28.4
Spain	1952-57	45.8	48.5	4.9	5.7
Turkey	1954-59	59.1	29.3	7.6	11.6
<i>Average of low-income countries</i>		27.8	51.8	29.05	20.4

States	Fiscal years considered	Percentage of total budget income			
		direct taxes	indirect taxes		other incomes
			total	customs duties	
<i>High-income countries</i>					
<i>North-America</i>					
Canada	1954-59	57.0	36.9	10.3	6.1
USA	1954-58 A	80.8	15.0	...	4.2
	B	69.4	30.7	—	—
<i>Europe</i>					
Austria	1953-58	44.1	43.92	4.7	11.98
Belgium	1953-58	41.95	20.12	6.6	37.92
Denmark	1953-58	43.6	48.8	...	7.6
Finland	1954-58	22.6	52.5	13.2	24.9
France	1953-58	23.5	68.4	2.1	6.2
German F. R.	1953-58 A	40.0	53.6	...	7.8
	B	92.0	5.9	—	2.1
Italy	1953-58	20.5	53.8	21.9	25.6
Netherlands	1954-58	56.5	43.4	10.0	—
Norway	1953-58	29.6	60.0	7.4	10.4
Sweden	1954-59	48.3	37.8	...	13.9
Switzerland	1954-59	25.4	58.5	28.0	16.1
United Kingdom	1954-58	49.5	41.7	...	8.8
<i>Oceania</i>					
Australia	1953-58	61.79	35.81	8.2	2.29
New Zealand	1953-58	61.17	31.31	14.1	7.51
<i>Average of high-income countries</i>					
		44.3	43.9	11.5	12.8

A = Central government.

B = Local government.

Considerations of tax policy and economic policy are obviously in favour of the indirect taxes in the developing countries for the following reasons:

a) Taxation should be widespread in the developing countries. Best suited for this purpose is the purchase tax because there are more consumers than persons with tangible incomes.

b) Social, economic and psychological considerations require the stimulation of endeavours to raise individual income. It is not expedient to curb this motive by imposing taxes on income, and even high-income subjects should be taxed rather at their purchases (e.g. luxury taxes) because thus they contribute to accumulation either by tax paying or by saving.

c) In a system of indirect taxes the activities of calculating and paying the taxes are performed by the enterprise organization, and thus the economic organization can be used as tax apparatus.

In the case of direct taxes, the tax subjects may not all be capable of filling out the necessary tax returns, on the one hand, and experts for checking the returns and for assessing the taxes are not available in sufficient number. Good financial experts will find better-paid jobs in the enterprises.

These considerations do, of course, not apply once for all. When incomes rise, the direct taxes may represent an important source of incomes. By its progressive character direct taxation may contribute to a more even distribution of the burdens and create a contact between the state and the tax payer. Finally, the purchase tax as an instrument of economic policy only influences the decisions of the population regarding consumption. This is not sufficient because the attitude and decisions of the large masses relating to investments, production targets and structural changes must not be let out of control either. Therefore the development of income taxation is an important task with a view to the future, in the interest of national economic growth and progress.

### *B) Direct Taxes*

The direct taxes are divided into personal, enterprise and property taxes.

By imposing personal taxes the state must follow the processes by which the individuals enter into gainful occupation and their personal income develops to the level subject to taxation. As a rule, in the first period of economic growth, when it most probably follows the extensive direction, living conditions are improved not by the rise of the real wages and incomes but partly by the increasing number of the employed and partly by the former participants in subsistence economy adapting themselves to commodity, money and market conditions.

In the developing countries the conditions for acquiring incomes are created mostly by the state and thus their existence can easily be ascertained. Income taxation may induce the population positively to exploit new opportunities opened for acquiring income. If, for instance, the state has an irrigation plant built or wells drilled, providing thereby opportunities for the population of the region to rise hectare yields, introduce new crops and to develop more lucrative market contacts, it is reasonable to levy income tax on those concerned. This will act as a coercive economic measure prompting the population to avail themselves of the new opportunities of income. In this sense the income tax may also promote the switch from subsistence to market economy.

This concept of income tax relies on the assumption that the opportunity itself is to be taxed, irrespective of whether the subject of taxation did or did not avail himself of the opportunities opened by the government's investment.

Based on similar considerations was or still is the "poll tax" in some developing countries, meant to stimulate the population to undertake work. But the poll tax is a politically complicated problem since the state does not ensure employment for every individual. This tax was recently introduced, for instance, in Algeria with the motivation that, while those permanently employed take their share in

the building up of the economy, those without permanent employment are stimulated by this tax to undertake odd jobs ensuring at least some minimum of money income.

Finally, we wish to make a few comments on the income taxes imposed on those working in the state apparatus, the new civil servants.

Equity and the sense of justice of the citizens make it necessary that this layer, too, should take its share in taxation, the more so that it directly owes the improvement of its social and economic position to the creation of the state.

It seems to be more reasonable to pay higher salaries to the civil servants and impose relatively high and progressive taxes on them than, for considerations of frugality, pay lower salaries and grant exemption from taxation. Higher incomes impart authority to this layer which they really need, and the high income taxes are eloquent proofs of their making significant sacrifices. They can then always be quoted as examples when taxing private incomes.

In some developing countries there still exist some upper strata the taxation of which is desirable for both accumulation and political reasons. For reasons of accumulation, because these layers rarely invest their income productively and, for political reasons, because the masses making sacrifices in various forms will otherwise not regard the policy of the government as fair and equitable.

Yet it is very difficult to assess the incomes of these strata. That is why we endorse N. Káldor's theory suggesting the introduction of a tax on spendings in India and Ceylon. According to his suggestion, the amount of taxes to be paid by this layer is determined by their assumed spendings, assessed on the basis of their style of living.

### *C) Direct Taxation of Enterprises*

In the developing countries the direct taxes on enterprise have a greater significance than have the personal taxes. When assessing them, budget considerations should be supplemented by the aspects of economic policy. The enterprise tax may affect the development of the economic structure if, for instance, tax allowances are granted to enterprises that provide for the satisfaction of needs essential for the development plan. The direct enterprise taxation has an impact on the balance of payments, too, since the foreign enterprises expatriate a large part of their profits. It would therefore stand to reason to levy an appropriate profit tax so that at least part of the profits should remain in the country. Such measures, however, will never achieve the desired effect because profit is a residuum arising under the impact of many different factors, one that can be modified within very broad limits with the help of various accounting methods. However, a foreign enterprise is able to transfer large parts of its profit by charging fictitious expenses (transport costs, commissions, etc.) or by manipulating cost prices and selling prices. Beside imposing certain taxes on the profit, it is thus more expedient to tax, in the interest of accumulation, such cost items as can more easily be controlled in book-keeping.

The usual argument against this is that in the case of high taxes the profit of the foreign capital will be lower than it would be at home, and therefore the foreign capitalist will be reluctant to invest in the developing countries or will gradually withdraw his existing investments. It should obviously be taken into account that, at present, the net profit of the capitalist enterprises is high also in the industrially advanced countries. Nevertheless, it is important to know that, according to a report of the Trade Department of the United States and to the figures published in *U.S. News and World Report*, the profit of American capital is higher abroad than at home. In 1959 the profit rate from the capital investments abroad was 16 per cent and from those at home only 11 per cent. The corresponding figures for 1960 were 14.2 and 9.2 per cent.<sup>15</sup>

When assessing these data it should be kept in mind that the category of foreign investments includes the American enterprises operating in Western Europe, and here profits are lower than in America. Thus, the figures quoted prove that the capital investments in the developing countries are still advantageous. True, the rate of profit alone, without knowing its volume, does not give a complete picture. Yet the high rates of profit show that when capitalists are reluctant to invest in the developing countries, this is for political rather than for economic reasons.

According to our computations the order of magnitude of profits withdrawn annually from the developing countries is somewhere between 4,000 to 5,000 million. Between 1960 and 1962, however, the American enterprises reinvested only 17 per cent of their profits derived from the developing countries in the same, while of their profits earned in the advanced capitalist countries more than 50 per cent were reinvested.

What are the most readily controllable expenditure items in book-keeping on which the taxes promoting accumulation can be imposed?

The most easily taxable items seem to be—first of all—the wages, certain raw materials and some kinds of services. When assessing the level of enterprise taxes levied on any of these, it is necessary to weigh the economic consequences of such a tax level, as well as the expectable attitude and possible counteractions of the capitalists involved, namely:

- a) whether it will be paying for them to maintain the enterprise in question in the given country?
- b) will the new tax level not reduce the extent of the enterprise's economic activity?

It should be realized that the capitalists of today are more interested in the absolute volume than in the rate of profit. Hence, the impact of the planned tax level upon the volume of profit must always be taken into consideration. This is

<sup>15</sup> Cf. M. Simai: *A kapitalizmus világgazdasági rendszere* (The World Economic System of Capitalism). Közgazdasági és Jogi Könyvkiadó, Budapest 1965, p. 118. According to more detailed data, the profit rate of the American capitalists in Venezuela is around 30 per cent, in Africa around 20 and in the Middle East around 50 per cent, as against the domestic 9 to 11 per cent.

not difficult in the case of export goods, yet in the case of production for the domestic market the problem is complicated by the fact that the low purchasing power sets limits to price rises.

It should also be realized that the attitude of the capitalists established in a country for years or decades will differ from the attitude of those who still weigh the opportunities of future investment. A measure which a settled capitalist must comply with may be, in the eyes of a prospective settler, a preclusive handicap when compared to other opportunities or countries.

Leaders thinking in long-range conceptions of economic policy must never overlook the above economic considerations. In economic policy, as of course in general politics, it is extremely dangerous to fail to reckon with the medium-range and long-range consequences of our actions. These consequences may crop up unexpected, and then haste and confusion may result in emergency measures radically contradicting one another. These statements must naturally not be considered to mean that the foreign enterprises should not be taxed increasingly. This is absolutely necessary and reasonable. But when planning the relevant steps we must be aware of all middle- and long-range consequences of the possible measures. Particular care should be devoted to the weighing of the effects of the given measure on the economic environment as a whole, because this is what the capitalists weigh most cautiously when planning investments or when considering some investment in a developing country as a possible variant for placing capital.

The settled capitalists are, of course, concerned not only with problems of existence (in the sense that, instead of "to be or not to be", their dilemma is to stay or to leave) but also with the ways and means by which they might reduce or neutralize the effect of the increase in taxes. For instance, when a payroll tax is introduced—an indisputably correct measure for a developing country since, with the low wage level, the capitalists anyhow enjoy an additional surplus value—it is probable for labour to be gradually replaced by capital, i.e. certain labour-intensive processes will be mechanized to save manpower. As a consequence, employment will fall, creating inconveniences for the government both economically and politically. Moreover, it must not be overlooked that most of the foreign enterprises operate in more than one, often in many developing countries. If the payroll tax is introduced only in one country, the entrepreneur may transfer certain labour-intensive processes into other countries.

The government may raise the price of raw materials and services (e.g. transport, electric energy, water, etc.) shipped or performed by the state-owned enterprises for the foreign enterprises. In this case the income does not flow directly to the treasury yet the profit of the foreign enterprises is none the less reduced. Another possibility consists in introducing a purchase tax on the raw materials and services in question, in order to avoid the untoward effects of a dual price system. Essential is the redistribution of income, its form is of secondary importance because in either case one must reckon with the counteraction of the foreign enterprises. This may differ according to the type of products manufactured by them, to the place of their marketing and to the number of the countries covered by their activity.

When the products are destined for export, the rise of the prices of raw materials and services can, in general, not be transferred to the buyers because of the sharp sales competition on the world market. However, this holds true only when the prime costs of the given enterprise are near to the world market price. Now there are raw materials whose production costs in some developing countries are considerably below the world average of costs. In this case, prime costs could be raised without interfering with the export possibility. As an example let us refer to the production costs of mineral oil in the Middle East and in Texas.<sup>16</sup>

When a foreign enterprise produces for the domestic market, any rise in taxes or the prices of materials etc. will be transferred to the consumers to an extent permitting the highest possible volume of profit. (Evidently, there is a point beyond which a price rise would substantially reduce the volume of sales and, consequently, of profit.)

When the capitalist enterprise is unable to transfer the consequences of a cost rise to the buyers, it is likely to resort to other means, for instance, it will try to purchase the raw materials or services in question from abroad, or to modify the pattern of production in a less material- and energy-intensive direction. In this case government revenues from tax or sale will not rise at the expected rate and may even diminish.

In the Sudan, for instance, as we know it from R. Stucken,<sup>17</sup> the enterprise tax (business profits tax) has the highest yield of all direct taxes. The scale of this tax is steeply progressive. This theoretically correct measure is, however, being counteracted in such a way that the enterprises are divided into smaller plants accounting separately and thus paying less. Consequently, tax revenues lag far behind the real expansion of the private enterprises. When developing taxation measures, the government must always take into account the possible counter-moves of the extremely inventive and materially interested other party—the capitalist enterprise—possessing sufficient material means and employing excellent experts. A permanent struggle goes on between the revenue office and the enterprise in which the latter commands stronger positions and displays greater elasticity. This has been convincingly demonstrated by the whole course of economic history.

In connection with the taxation of the home enterprises, let us stress again that the raising of taxes is only conceivable when an expansion of economic life takes place. And vice versa, when the government in any form promotes private enterprising, it must assess in advance the expectable growth of tax revenue.

The revenue office should be kept informed of all credits granted to enterprises, even to the smallest; and the granting of credits may be linked up with the debtor

<sup>16</sup> F.A. Al Hasab: *Az olaj nemzetközi ármechanizmusa és a növekedés néhány kérdése Közép-Keleten* (The International Price Mechanism of Crude Oil, and Some Questions of Growth in the Middle East). (Dissertation. Library of the Marx Károly University of Economics, Budapest 1966.)

<sup>17</sup> R. Stucken: *Die Finanzen eines Entwicklungslandes: die Republik Sudan*. *Finanzarchiv*, No. 1. Tübingen 1963.

undertaking tax obligations. This also serves as an incentive to utilize the credit efficiently.

The taxation of enterprises operating in co-operative form, including the agricultural co-operatives, presents a number of problems. Thus, the members of the co-operative should be progressively taxed on their incomes deriving from the co-operative, but the part of the gain used for collective investments must remain tax-free or be taxed moderately. In the latter case different rates can be applied depending on the desirability of investment (for instance, gain invested to soil amelioration may be exempt of taxes whereas it may be subject to tax when it is used for trading purposes).

#### *D) Taxes on Property*

Of the property taxes the land tax and the house tax are the most important. Both have certain special features in the developing countries. As for the house tax, one of these is that the average taxable value of a house is generally small partly because the tropical or subtropical climate permits a lighter construction, and partly because of the poverty of the population. Another feature is the preponderance of family houses, even among those being let for rent. Therefore in the developing countries great care should be taken not to handicap, by taxation, the necessary improvement of the housing situation. If, for instance, the house tax were highly progressive according to the size and equipment of the family house, this would, instead of increasing the tax yield, only cause the housing conditions to remain stagnant or even deteriorate, especially in the villages. And, what is even more important, the tax policy should directly promote, instead of penalizing, the use of contemporary building materials (e.g. less inflammable, better from the sanitary point of view etc.) and building methods (windows, chimney, sanitary equipment etc.). New dwellings, provided they meet in these respects the standards to be set by the law on house tax, should be taxed at more advantageous terms (or remain tax-free for a longer time) than under-standard dwellings, especially when these are built with the purpose of letting them for rent.

On the other hand, it is absolutely necessary that the taxation of house property take into account any increase of income or wealth caused by government investments made in order to improve the environment and general conditions of the residential district in question (like the building of roads and transport facilities, improvement of water supply, canalization and of other public services). If the taxation disregards the increment in value, resulting from such investments, then not only the state is deprived of its dues, but also a speculation is started through which some people acquire high incomes and wealth against the purposes of the economic policy.

As regards landed property, a betterment of the environment by government investments frequently occurs when, for instance, a government-sponsored irrigation project increases hectare yields or when, by construction of roads leading to the major centres of consumption, sales and/or unit prices are suddenly increased.



In many developing countries the land is tribal property, raising serious problems for land taxation. The imposition and the collection of the land tax on tribal property can be undertaken collectively covering the entire land in the possession of the tribe. The principle according to which all land of the tribe belongs to the chieftain<sup>18</sup> (to the "see" in the terminology of the former British colonies of Africa) can be expediently modified by declaring that the land belongs to the state which entrusts the chieftain with the collection of taxes. In the course of further development, the landed property can be then transferred to social groups (village communities or co-operatives).

The land tax is an important instrument of economic policy to influence the structure of production. By granting provisional exemptions or reductions, tax policy can differentiate according to the various crops which can thus be either encouraged or checked.

The land tax may, on the other hand, be instrumental in transforming social and property relations, in promoting the development of the socially and economically desirable forms of ownership and farming. Land tax policy must stimulate the better utilization of land and the expansion of areas suitable for cultivation. If the feudal ownership relations cannot be eliminated overnight, at least high taxes should be levied on the landlords, with reductions granted on the condition that they let their land to small tenants. This latter measure is the only possible way to prevent the landlord from making his tenants pay the high land tax he was meant to bear.

Land taxation policy should, moreover, induce the small landowners to avail themselves of the advantages inherent in co-operation, that is, levy lower taxes on collectively cultivated land. Although such reduced taxes diminish the receipts from the land tax, they, as a rule, enable the state to recover this loss by income taxes (for instance by taxing the share of the gain distributed among the members of a co-operative farm).

#### *E) Indirect Taxes*

There are many kinds of indirect taxes but all are based on the transfer of some property or on the use of some service, and the payment of the tax is associated with these acts of transfer.

In the socialist countries, for instance, the "producer's turnover tax" is predominant. It is imposed as a percentage of the producer's price and is to be paid by the producer. Thus, he pays the turnover tax for the entire course of the commodity, from the producer to the consumer.<sup>19</sup>

The imposition of such indirect taxes is expedient in the developing countries, too, because

<sup>18</sup> The chieftain is the owner of the land as the head of the community and the representative of the ancestors but not in the modern sense of the word.

<sup>19</sup> Known in the international literature as the manufacturer's excise tax (*l'impôt sur le chiffre d'affaires*).

- they can be collected in the most decisive phase of the course of goods (in the phase of production) which facilitates accounting;
- they are paid according to the development of sales;
- no individual participating in the consumption of commodities can evade them;
- they are relatively less conspicuous for the public, being simply parts of the price;
- when appropriate tax policy is pursued, the state revenues from indirect taxes will always rise parallel to the expansion of the economy and of consumption.

On the other hand, it is true that indirect taxes charge the burden of accumulation to the poor and the rich alike, without discrimination. (Under socialist conditions there is no such problem because the incomes are distributed almost exclusively according to the quantity and quality of work done, whence the differences are rather limited.) It is obvious, however, that in the developing countries also the standard of living of the masses must be charged in the interest of accelerating growth, since the well-to-do layer is not important enough to carry alone the burdens of accumulation in the form of income or property taxes.

When determining the rate of the turnover tax first of all, luxury articles and mass consumption goods must be distinguished. Rates may be set high for the former and low for the latter. The large turnover of the staple goods yields larger receipts in spite of the low rate of tax. The optimum yield should be determined by elasticity calculations.

In many developing countries there is a strong tendency to handicap the consumption of fancy goods. Politically, this is quite understandable because, with the low standard of living of the masses, luxury tends to accentuate the disproportions in the distribution of income and wealth. From the economic point of view, however, the problem of disproportion lies not with consumption but with incomes. Income distribution does not become more proportional by taxing luxury articles. Difference should, of course, be made between fancy goods imported and manufactured at home. When there is a serious shortage of foreign currency or when the equipments necessary for industrial and agricultural development or foodstuffs bitterly needed by the working masses cannot be imported, it would be indeed a serious mistake to use foreign currency for fancy imports. But when there is sufficient manpower in the domestic economy, or even a visible unemployment in town and village, the reduction or prohibition of domestically produced luxury articles increases unemployment.

But as long as there are disparities in the distribution of incomes, economic efficiency can be increased by efforts to include the larger incomes into the economic circulation. If this is not achieved, the high-income strata will thesaurate their incomes or spend them abroad. The high incomes should be directed towards the sphere of investments because a country poor in capital cannot afford to leave part of the capital unutilized. This task can be achieved in two different ways. One of them is to create an economic environment attracting capital and stimulating investments. But part of those who have grown rich under the old economic con-

ditions are known to be reluctant to invest their capital in up-to-date forms; they prefer to live in luxury. Thus, by imposing high taxes on luxury articles, at least part of the unutilized capital comes back to the state in order to be reinvested.

Consequently, alternatives should be given to those enjoying high incomes; partly by creating favourable conditions to invest and partly by tolerating some less import-intensive and heavily taxed forms of luxury consumption. Whichever alternative they chose, they will directly or indirectly contribute to accumulation. Nevertheless, it must not be forgotten that an up-to-date economic life and industrial development require a much more even and equitable distribution of incomes than has so far developed in these countries.

*Mutatis mutandis*: the problems arising in the advanced countries tend to be similar. For instance, in spite of the individual social harms of alcohol or tobacco, the taxes imposed on them have for centuries been important sources of budget income.

#### F) Import Duties

In the developing countries the import duties have a treble function:

- a) they contribute to the state incomes,
- b) they help equilibrate the balance of foreign trade if it cannot be achieved by increasing the exports,
- c) they stimulate the internal agricultural and industrial production, protecting it against foreign competition.

Of greatest importance for the raising of budget incomes are the taxes on the inelastic goods (predominantly, foodstuffs) because the rise of the prices does not decrease consumption. Kenya, for instance, raised the import taxes of certain foodstuffs and textile goods in 1964-65 in order to reduce the expected budget deficit.

With a view to creating a foreign-trade equilibrium, i.e. to reducing the expected deficit, high import duties are usually imposed on certain commodities, chiefly on fancy goods (for instance, motor cars). Experience shows that such customs duties are not very efficient.

If the balance of payments is very unfavourable, it is simpler to prohibit the imports of fancy goods because this is the only measure that results in real savings of foreign currency. As regards passenger cars, if the intention is to raise budget income, then the expenses of holding a car should be increased rather than the customs duties. The passenger cars provide the state with various sources of income; for instance, a direct tax can be levied on car holders, an indirect tax on the fuel and oil, and tolls on the use of roads.

The import of foodstuffs that can be produced at home is taxed to stimulate home production. This results also in the rise of the home prices, a factor stimulating agricultural production, though only in such sectors of agriculture as are already sensitive to external impulses. Nevertheless it must be realized that the imposition of customs duties resulting in the rise of food prices is a very unpopular

measure even though it may stimulate agricultural production for a medium- or long-term period. And this is not a purely political and psychological problem. The rise of food prices in the urban districts may upset the relative economic stability already obtained; and in a developing economy it is much more difficult to restore the equilibrium than in the socialist or advanced capitalist countries. The governments of the developing countries do not have at their disposal such means for restoring balance as have the economic leading organs of the socialist countries because those means are applicable only under the conditions of a homogeneous national economy, of an overall assertion of money economy and of a very wide sphere of state ownership. As regards the advanced market economies, their equilibrium—possibly after extreme fluctuations and commotions—is restored automatically. In a developing country, owing to the underdeveloped state of the internal economic relations and to the survival of subsistence economy, the spontaneous market mechanism is not working adequately. There is no enterprising layer (and we have not only the capitalist entrepreneurs in mind, because enterprising and the undertaking of risks are accessories of the socialist economy, too) which would avail itself of the possibilities of combinations deriving from the new situation.

Hence, beside the stimulating agricultural prices, the state needs a permanent organizing activity supported by the co-operatives, by constructing proper transport arteries and creating storage capacities, etc. to ensure that the impulses coming from the side of the prices should not abate in a vacuum. Otherwise the stimulating effect of the prices is lost, as the efforts of the producer to boost production come up against unsurmountable difficulties either in the production itself or in the marketing.

The duties levied on imported industrial goods are not meant in the first place to raise the state income (although this is always welcome). Their function is to help the creation of domestic industry, i.e. such branches as can readily be developed under domestic conditions. Yet in certain cases the raising of the prices of the import goods through duties is not enough to ensure the conditions necessary for the development of home industry. If there are particular national-economic reasons for promoting an industry, then it is expedient to prohibit the import of the relevant goods or to restrict it to fixed quantities (quotas).

The building up of the system of protective tariffs, import restrictions and quotas has today become a prevailing practice in the developing countries. The theorists of "free trade" had to experience that no sound nation would act against its own interests for the sake of a doctrine. Even the West-European and American economists having an eye for the situation in the developing countries admit that protectionism in the first period of economic growth (lasting for decades) is a rational attitude of economic policy. Raymond Aron<sup>20</sup>, for instance, quoting India as an example, proves that the unlimited import of industrial goods could paralyse industrialization. We only wish to add that it may completely upset the economic equilibrium because with the rapid increase of the population, in the absence of

<sup>20</sup> R. Aron, *op. cit.* (p. 171), p. 178.

home industry, the growth rate of the imports may exceed many times that of the exports. Yet neither the limitation of imports nor the protective tariff is a cure-all which would prove useful in every phase of economic growth. Efforts should be made to prevent the period of protectionism in general and the exemption of certain industries in particular from lasting longer than absolutely necessary. In the long range, enterprises subject to concurrence and other impulses from abroad develop better than those artificially protected against them. Therefore, the economic environment created by the atmosphere of protectionism must not be perpetuated but should be transformed as soon as the conditions permit.

Also the problems associated with the import duties demonstrate that a financial policy abstracted from the general problems of economic policy never really serves the purpose. (Unfortunately, many budget and taxation experts are inclined to tear out the financial problems from the general context.) Every single step taken in the process of economic growth—whether in the domain of finances, industry or foreign trade—should be weighed with due regard to effects and interactions as a result of which growth is accelerated or slowed down.

When imposing import duties the whole economic circulation should be taken into account, and no such means should be applied as are useful in one respect (e.g. the increase of the state incomes) yet are harmful with respect to the whole of the economic process. On the other hand, partial measures are, in themselves, not expedient if they are not complemented and supported by others. Domestic production, for instance, will not develop even with the highest protective tariff unless the government grants exemptions, stimulates and creates the conditions under which the economic organizations and individuals, while in compliance with their own-interests, are prompted to act correctly from the point of view of the national economy. Such initiatives, naturally, do not mean that everything should be performed by the government. There is no government in the world that could replace or make up for the seemingly independent but really environment-determined actions of millions.

The main task of the government consists therefore in establishing the social and economic conditions in such a way that under their impact the economic organizations and individuals will take such decisions as are rational with respect to both their own interests and to those of the national economy. Further, the government must provide part of the means with the help of which such rational actions can successfully be performed.

#### *G) Export Duties*

According to J. Adler's data<sup>21</sup>, the revenues from customs duties amount to 29 per cent of the total budget income in the developing countries and only 11.5 per cent in the industrially advanced capitalist countries.

<sup>21</sup> See Tables on pp. 179 and 180.

Export duties make up the major part of the revenue from the customs. Their share is highest where the country's economy is monocultural and the bulk of exports consists of one or two products.

The export duties constitute in the first place a source of income and do not belong to the major instruments of economic policy. Yet as a source of income, owing to the crop fluctuations and the ever changing situation on the world market, they are unstable and uncertain. If their share in the budget is great, their fluctuations will involve deviations of large amplitude in the budget. The amplitudes in the budget, according to A.R. Prest<sup>22</sup>, may become grave if the export duties attain or exceed 30 to 35 per cent of the budget income.

In Burma, for instance, the implementation of the eight-year plan beginning with 1952 was jeopardized, among other things, by the fact that the revenues from the export of rice—owing to the fall of the world market price from £ 60 to £ 36 per ton—resulted in an income of 4,162 million Kyat instead of the expected 6,825. Hence the amount of investments had to be reduced from 3,300 to 1,700 million Kyat in the first four years of the plan.<sup>23</sup>

Another problem is that the receipts from the export duties are sometimes partly or wholly consumed by the price support granted to the producers. In Brazil, for instance, the state buys the coffee surpluses to keep up the prices. It seems reasonable (as it has been recommended also by the Geneva World Conference on Trade and Development) for the governments to accumulate in the more advantageous years a reserve fund for the purposes of intervention purchases and other price-supporting measures.

The problem of price support to be granted to the producers can be alleviated by nationalizing the marketing boards and extending their functions to the control and organization of production, to the improvement of storing conditions, and so on. This would promote the co-ordination of the quantity of production (more exactly the extension of the sown area) with the demands on the world market and the better choice of the time of selling. In this case, instead of the export duties, a budget revenue can be fitted into the price calculation system of the marketing board.

The nationalization of the marketing boards permits the reasonable adjustment of their financial management to the budget. A precondition of the efficient operation of a marketing board is the forming of reserves from the receipts of favourable years and to use them in unfavourable years. However, in view of the scarcity of capital it would be an unreasonable luxury to keep these reserves on a separate account, withdrawing them from economic circulation. It seems more correct to feed the surplus revenues of the favourable years into the process of capital accumulation and grant state credits to the marketing board when there is a necessity.

In the developing countries it is, usually, necessary to dovetail the budget and the commercial considerations more elastically than in the advanced capitalist

<sup>22</sup> A.R. Prest, *op. cit.* (p. 167).

<sup>23</sup> (I. Vasiliev) И. Васильев: Финансирование планов экономического развития Бирманского Союза (Financing of the Economic Development Plans in the Union of Burma). *Мировая Экономика и Международные отношения*, No. 2. Moscow 1960.

countries where capital is abundant and the ownership relations differ from those in the developing countries. Under such conditions, it is permissible and desirable to interpret the concept of reserve funds more elastically.

By such a co-ordination of the commercial and budget considerations, the large annual fluctuations of accumulation and of investment activity can be avoided. Without this, the annual differences in the volume of investment will be enormous. In prosperous years, i.e., when the crop is good and the world market prices are favourable, investment activity booms, inducing the extension of projecting and construction capacities. In the initial stage of development these capacities fall short of the demand and can only be co-ordinated with it after a certain time. But by the time these capacities attain a reasonable level, the investment activity may subside on account of bad crops or low world market prices; hence part or most of the projecting and construction capacities will remain unutilized. In order to prevent the fluctuation of investment activity such reserves should be created as permit, even in bad years, the comparatively even utilization of the capacities that have been built up with great sacrifices.

### Other Modes of Accumulation

Taxes and duties may play a very important role among the income sources of the state. Under the less settled and differentiated conditions of the developing countries, however, a much wider sphere of alternative income sources should be considered. Such sources, within the budget, may be the fees charged for services, the net income of state enterprises, credits from the issuing bank, etc.

In the wider concentric circle, i.e. national economy, whose decisive part is the budget, the means of accumulation should be identified by relying on a wide circumspection and on the knowledge of the phases of transformation of the developing economy. But the alternative possibilities of accumulation can be found on several levels since, under the given conditions, not only money but also goods, services and human labour can, in their natural form, be made to serve accumulation. In the advanced industrial countries the whole process of accumulation materializes on the money level or through the intermediary of money.

The developing countries have not yet evolved the economic environment and the patterns of behaviour in harmony with it which would induce the population and organizations to save, the capitalist to keep capital in reserve, the contractor to transform financial capital first into investment goods (means of production) and then into consumer goods. Relatively underdeveloped is also the money economy permitting the exchanges necessary to this process to materialize in any combination, since money and the institutions required for its utilization are not yet omnipresent in the economic circulation.

Efforts must not be spared to bring up to date the economic environment (including money) and the corresponding patterns of behaviour although this is a long process, possibly taking decades to assert itself. But economic growth must be

started right away, nurtured and stepped up, a task consisting in the direct establishment of certain economic relations (without or with the partial use of money) and in orientating the various processes along the channels of these relations toward accumulation.

We shall now examine other accumulation possibilities emerging outside the state budget, and even outside money economy.

Before embarking upon this discussion let us expound a few ideas in connection with the formation of new capital.

New capital is formed during the process of capital accumulation. This can constitute a substantial source of investment only in an economy where capital is invested efficiently, the profits are reinvested in the domestic economy and the size of the economy is considerable.

Credit creation for investment purposes requires a certain amount of accumulated capital and an advanced system of financial institutions. In the developing countries where the quantity of circulating money is relatively small, credit creation results, as a rule, in inflationary tendencies.

In relation to certain countries capital import may also be a source of capital. The relevant problems will be discussed in the chapter on foreign trade and here we just want to mention that foreign capital operating actively in a country engenders growing burdens on the balance of payments, burdens of often unforeseeable dimensions, whereas loans, especially when contracted by the government itself, may play a more positive role in the internal development. Yet it is not possible, nor is it expedient, to make a large-scale use of the loans.

Little attention has so far been devoted to a source which may become substantial in a developing country, to capital transformation.

### Capital Transformation, that is, Modernization of Capital Structure

As we have pointed out earlier, beside a general scarcity of capital, the developing countries are also characterized by a specific, outdated capital structure. The commercial money capital abounds, but there is a lack of money capital willing to finance industrial and agricultural investments. It should therefore be attempted to transform the commercial capital into industrial and agricultural capital. This can only be achieved by the purposeful actions of the government since the transformation will never take place spontaneously.

In the present situation (the well-known historical causes of which it is needless to dwell upon) the predominance of the commercial money capital, as well as its unwillingness to extend its sphere of operation to production can be traced back to four reasons:

a) the dual structure of the economy, i.e. the strong survivals of the precapitalistic mode of production (in which, as is known, production was financed by the commercial capital);



b) the difference in profitability of production and of commercial transactions, in favour of the latter;

c) the safety and liquidity preferences of the capitalists;

d) the underdeveloped state of the financial institutions (chiefly of the banking system).

By planned measures, economic policy can influence these factors, that is, mitigate or modify their effects.

The differences in profitability can be modified or even reversed if the state or the banking institutions, wholly or partly owned by the state, offer interest rates on deposits equal or exceeding the average profit rate of commercial transactions. (When determining the interest rate, due account must be taken also of the fact that bank deposits are practically free of risk whereas a good deal of risk is involved by the commercial transactions.) This relatively high interest rate, however, must not be charged on those who would contract loans for productive investment purposes.

This means that the banks must charge lower interest on the investors than they pay to depositors, and the resulting loss has to be covered from the budget. This is a heavy burden on the state, but it should be collated with the conditions of raising foreign credit, with a view to the facts that:

a) the real interest rate of the foreign loans—that is, calculated on the basis of the amount of capital actually received, which is much less than the “nominal” amount of the loan—would also be very high;

b) interests and amortizations should have to be paid in foreign currencies;

c) the contraction of a foreign loan always involves some political and/or economic commitments for the government. It is, then, highly probable that the transformation of domestic commercial capital will prove advantageous for the national economy. These advantages grow with the amount of commercial capital shifted to industry and agriculture. In the budget there will, naturally, be extra expenses but within a long range these will be equalized when the extra expansion of the economy ensures a greater tax revenue.

In connection with the problem of capital transformation we wish to mention the basic shortcomings of the “budget attitude” taken in the narrower sense of the word. Many budget experts simply preclude any variant tending to increase budget expenditure. They fail to collate the variant involving a rise of the state expenditure with other variants by which the same needs can be met, that is, in the present case, the need of increasing productive investment which is indeed vital economic growth. Often they even fail to realize that, though it is possible to save by cutting state subventions, it is virtually impossible to satisfy those vital needs without them; and therefore economic growth simply will not start, or its rate will remain below the desirable. Since, however, money is one of the most comprehensive economic categories, influencing all the rest, the decisions regarding its circulation, spending and saving require the consideration of the whole economic background, i.e. of all processes concomitant to economic growth.

A wide-scale and successful transformation can only be achieved by ensuring the safety of the capital.

The greatest advantage of commercial capital lies in its liquidity, that is, in the fact that it is present in the form of either money or commodities that can be transformed into money at any moment. This liquidity means also a certain degree of safety, when compared to capital invested for a long time in productive enterprises. In the case of political crises commercial capital can easily be transferred abroad. Let us remember that in the Middle East at times of political crises there is a sudden rise in the sum total of the deposits in the Lebanese banks. (Lebanon is known to be a deposit centre of the Middle East not unlike what Switzerland is for Europe.)

Certain state guarantees would increase the safety of the commercial capital to be placed in industry, i.e. improve its willingness to be transformed. But the guarantees are offered by governments whose promises and agreements are only partially binding on their successors. And, owing to the insecurity of the political and economic power relations, changes in the regime are frequent in the developing countries. Moreover, the opposition of the government is not a parliamentary party which, in a stable two-party system of government, could adhere to the guarantees. The oppositionary forces are not even present in the open political arena. It follows that, instead of the guarantees offered by the government of a single country, some kind of international guarantees would be necessary. Such guarantees could be offered by an international banking institution the activities of which would extend to a whole regional group of developing countries. Such an institution could vouch for the bonds or other securities issued in the process of transforming commercial capital to productively invested capital.

The African Development Bank seems to be a suitable institution for the African countries.

Modern banking institutions could promote and encourage this process of transformation. It is of paramount importance in this respect that the banks handling the transactions in each country as agents of the international (regional) bank should be state-owned or state-controlled.

The transformation of the commercial capital is promoted by the circumstance that, once economic growth is started, the demand for commercial capital is automatically reduced and the profits of intermediate trade decrease. When a normal credit economy begins to develop, rates of interest tend to fall. Finally, the nationalization of the marketing boards, as well as the introduction of the co-operative sector in trade and production constitute new elements in the traditional sphere of marketing and credit. And these new elements will greatly contribute to the planned and purposeful efforts of the government to improve the capital structure.

### Forced Saving Charged on Incomes

Forced saving, imposed temporarily and under exceptional conditions, has for long been accepted as a justifiable measure of economic policy. When, in order to start economic growth in a country poor in capital, the accumulation must be

increased or when under exceptional conditions consumption must be reduced (for instance at time of war), forced saving can hardly be avoided. It should, however, be kept in mind that the masses can only in exceptional circumstances be induced to act against their short-term interest for the sake of a loftier aim (national defense, development of the national economy). In the hope of a better future they are willing to make sacrifices, if they are convinced of their necessity. Yet even the most progressive and most disciplined layers of the nation will not abide by the idea of living throughout their lives under "exceptional conditions", i.e. of having to make sacrifices of a permanent character. Hence forced saving may, especially at time of peace, constitute only a short-term and provisional measure. This statement is born out also by the experience gained in the socialist countries. The issuing of state loans (generally called "peace loans") on two or three occasions met with the spontaneous agreement of the progressive masses, and they were signed up without a substantial administrative pressure. Later, however, when in spite of the tangible economic growth, annually new state loans were issued, their character of forced saving became increasingly evident, and eventual the practice had to be discontinued for political considerations.

The developing countries can obviously not dispense with the sacrifices of the masses in starting and accelerating economic growth. Yet it is open to doubt whether this form of sacrifice results in an economic effect comparable to the political harm done by the necessary measures. In other words, the question is whether the results attainable by forced saving cannot be achieved by economically more effective methods eliciting less political tension. In the developing countries it should also be taken into account that part of the population lives in a subsistence economy, the proportion of the wage and salary earners is low, and (unlike in the socialist countries) there still subsist layers living in luxury and turning the sacrifices of the masses to their individual profit. In certain countries where forced saving was introduced at a time, it had to be discontinued for not only political but also economic reasons.

The above considerations do not preclude the issuing of state loans on one or two occasions, but they are meant to stress that the permanent use of such methods is not expedient.

Financial policy should select methods and means that are economically more effective and elicit less political tension. There are many of them, and their sphere is wide. It would, for instance, be useful to introduce state lotteries. Their advantage is that the people themselves decide whether they want to participate (i.e. no pressure is exerted) and the receipts exceed by far those attainable by forced loans.

### Direct Participation of Labour in Accumulation

In an advanced economy the material goods accumulate in a monetary form, except the self-produced means of production reinvested. Yet in the developing countries it would not be expedient to wait till money economy becomes established in all parts of the country and in all sectors. There exists a possibility of "accumu-

lation" taken in the broad sense of the term, which ensures the centralized and direct utilization of labour without the intermediary of money and with but an insignificant amount of capital. This type of accumulation consists essentially of voluntary or forced social labour and is termed "labour service".

Labour service may also be an alternative to monetary taxation, i.e. a redemption of the tax by direct performance of labour. Such an activity may even yield direct income for the state. Tolls can be levied for the use of the roads built by means of labour service; the value of a betterment can be collected from the proprietors of land in the case of communal constructions, irrigations works, etc. Labour service, however, will only be economically efficient if it is well organized, if the various teams are led appropriately, are given concrete tasks and furnished with the necessary tools, failing which only the time of the participants is spent without really exploiting the manpower.

The army plays an important part in the direct utilization of manpower. Let us remember the great role of the army in the construction of roads for the Roman Empire, in the regulation of waterways and the exsiccating of marsh lands. (Similar phenomena can be observed today chiefly in the countries of Asia.) The years of military service may furnish an excellent schooling for the youth to acquaint themselves with up-to-date methods of soil improvement and irrigation as well as with mechanized techniques. Also other considerations can be adduced in favour of engaging the army in works in the country instead of keeping them practically inactive.

The activities of the army in remote parts of a country result not only in work done but also in foodstuffs bought. Soldiers using money for buying things "extend the market" into an environment where subsistence economy used to prevail.

A certain supply of industrial goods has also to be organized for the sake of the army, and these depots can be opened also to the local population which then will have opportunities for spending money. A kind of economic circulation begins, at first restricted to certain centres, but gradually expanding and creating demands among the population who acquire experience in exchanges for money and acquaint themselves with various products. Later it becomes possible to impose taxes in the form of money for which the preconditions have thus been created by the direct use of manpower.

It would, of course, be erroneous to impart to the army an unequivocally or overwhelmingly positive role in economic growth. The labour service conscientiously performed by the army refunds only part of the material means consumed by it.

### Net Income of State Enterprises

The net income or gain of plants and enterprises wholly or partly owned by the state constitutes one of the most desirable sources feeding the accumulation process. This income can most directly be used for financing further investments, and is a more advantageous source of budget than the taxes the collection of which is a more complicated and more expensive process.

No doubt, the creation of lucrative state enterprises in the first phase of industrialization is a very intricate task of economic policy and organization. Economic policy has to see to it that the new plants belonging to various branches be created in an order taking into account also the considerations of profitability. Textile plants using domestic raw materials and having a relatively large domestic market can be made lucrative much sooner than most enterprises of the heavy industry requiring the introduction of intricate technological processes and certain co-operating partner enterprises to rely upon, at the same time when their domestic market is rather limited. Owing to the comparatively underdeveloped state of the economic environment including the infrastructure, the organizational measures should be aimed at a very strong concentration of forces in order to coordinate work beginning from the raw-material supply, through the processing to the marketing of the products. The state, naturally, affords subsidies in many direct and indirect forms to its plants. Definite endeavours should, however, be made to ensure adequate independence to the enterprises that, as a rule, must compete with the private sector, with foreign plants and commodities, and therefore must have the possibility to react promptly to the impulses coming from the market.

Only a successful solution of these economico-political and organizational tasks entitles us to hope that the state-owned enterprises will be able to contribute to the budget income and thereby to accumulation in the first period of economic growth.

### Banking Institutions

The accumulation and financial policy described so far obviously requires the functioning of advanced and up-to-date banking institutions. With respect to these, two different attitudes have been voiced in the economic literature. According to one of them, the banks should be considered, as a framework for the financial processes taking place in economic life, their main task being to facilitate economic circulation. Other authors look upon the banks as active participants of the economic processes and as initiators of decisions and actions aimed at developing and directing economic life. From what we have said so far it follows that we endorse the latter conception. Banks should be organized in a manner enabling them to influence the quantity of money in circulation, its distribution as well as to direct the flows of money in compliance with the requirements of the economic development plans.

In modern economic life there are many different financial institutions, such as the *state budget* having such tasks as taxation, state expenditures, the redistribution of a substantial part of the national income, the issuing and buying back of state bonds; the *issuing bank or central bank* establishing the rate of interest, responsible for the rate of cover, open market operations, discounting bills of exchange of other banks, granting credits for them, buying and selling state bonds; the *specialized banks* granting credits for special purposes; the *commercial banks* conducting the money supply of trade, granting short-term commodity credits, discounting bills of exchange; the *savings banks* collecting the deposits of the population, grant-

ing credits to them, buying and selling securities; the *insurance companies*; the *pensions offices* or institutes; the *holding enterprises* and finally, the *productive enterprises* themselves with respect to their financial activities.

In a developing country it is not necessary nor is it possible to establish all these financial institutions in the first period of development. It is of paramount importance, however, to organize, as early as possible, the financial institutions launching and directing production.

To judge from the present economic structure, the institutions of primary importance are, beside the state budget and the central bank, the specialized (industrial and agricultural) banks as well as the investment bank. (This to perform the tasks of the holding enterprises and investment trusts of the advanced countries.)

It is also necessary to build up a network of savings banks for collecting the money surpluses of the population and for granting them small personal credits.

As regards the inner structure and organization of the financial sector, several historically evolved types are known. The British (and Canadian) banking organizations are characterized by the development of a few large banks whose branches encompass the whole country, and, as a rule, possess important branches abroad. On the other hand, the domestic money market of the United States is characterized by several minor independent banks, the activities of which are controlled by the Federal Reserve Bank.

In the socialist countries a third type of the banking system has developed; there are only a few banks with a dense network of branches. Among them, also the central bank (called National Bank) fulfils important functions in financing production. The banking system and the state budget are closely related.

Owing, among other things, to the lack of qualified manpower in the developing countries, it is expedient for them to centralize the banking system. If there are only a few banks with many branches, it will be possible for the local branches to perform the relatively simple work of accounting and management of deposits and for their centres to take the decisions requiring a larger horizon. This permits the adoption of a uniform financial administration, schemes of accounts etc. within the sector belonging to a specialized bank, and this in turn makes possible an expedient distribution and regrouping of qualified manpower between the various units of the network. Also the uniform accounting system facilitates control.

A banking system consisting of a small number of specialized banks also creates favourable conditions to the introduction of foreign loans into the economic circulation of the country in full compliance with the national development plan. Thus, for instance, the State Agricultural Bank of the Sudan, founded in 1959, and the same country's Central and Commercial Bank established in 1960 are "mixed enterprises" organized with state and private (partly foreign) capital.<sup>24</sup>

A similar organization, especially with respect to investment banks, can be observed in several developing countries.

<sup>24</sup> T. Fedorov, *op. cit.* (p. 169).

### Some Comments on the Level of Accumulation

As in a country poor in capital the primary task is to improve the factors that are least available, the problem arises by what criteria the optimum level of accumulation can be approximately determined. In this sense it is not sufficient to say that the greater the rate and the amount of accumulation, the better. It should first be considered, as we have pointed out earlier, that no principle of economic policy is self-contained; it is only within an interdependent system of factors and proportions that any such principle can be judged. If, for instance, accumulation is excessively increased at the expense of consumption, the purchasing power and the standard of living of the population will fall. This also results in the deterioration of the political atmosphere and of the labour zeal of the people. The restricted internal market is then unable to give the necessary impulses to agriculture to switch over from subsistence farming to money relations and market economy. Failing such impulses, the rural population will be unable to absorb the products of the developing industrial production. And there is no force that could lastingly maintain a situation in which the people as producers perform increasingly complicated tasks requiring higher qualifications, while as consumers they must live in worse and more primitive conditions than before.

Hence an excessive accumulation, going beyond the internal capacity of the economy and upsetting the equilibrium of the factors influencing economic growth can accelerate economic development only for a while but after some time it invariably leads to imbalance and a setback.

Yet the proportions mentioned are not the only criteria of the optimum level of accumulation. The intellectual and material energies involved in the course of accumulation are "invested" (that is, they are withdrawn from the system of actual economic circulation) in order to expand the productive capacities and infrastructure of tomorrow. It is, then, a problem of vital importance how efficiently they get invested. And this depends on the presence of adequate capacities for projecting and construction. It is well known that planning, disregarding now its economic aspects, employs hundreds of highly qualified and well experienced experts, and the implementation of projects presupposes a well organized and technologically equipped building industry. (The more so because in the developing countries, as in general in the phase of industrialization, 60 per cent or more of all investments are devoted to construction.)

Experience shows that the building industry—as an industry not settled but performing several tasks at sites located at long distances from one another—is liable to organizational ills. In the presence of these, the building of the projected establishments will require extra time and expense to be finished. This, in turn, means that—especially in centralized economies—the economic equilibrium will be upset because the products of the new plant will appear on the market much later than scheduled, and also because more wages will be spent on its implementation, and thus an extra amount of consumers' articles is consumed. The extra costs of investment mean also a rise in the production costs of the new plant. Fi-

nally, when the new plant is to produce export goods or goods substituting imports, also the balance of foreign trade will be adversely affected. Thus, in addition to the "normal" and estimable risks connected with investment, also the risks of a postponed and costlier implementation must be taken into account.

Since, in general, the investments promising the highest return are chosen, and it is exactly here that also the "normal" risks are highest, it is obvious that the possible mistakes of planning, technological projecting and implementation may increase a total risk to the extent where it would be more proper to call it a gamble.

Another aspect to be considered is that the investments in the developing countries are coupled with a vast amount of imports. It is obviously expedient to introduce the higher technological standard incorporated in the imported equipment, foreign licences bought, etc. and thereby to accelerate the rate of growth. But foreign currency is scarce and, under the specific conditions of the developing countries, only part of the internal accumulation can be converted into foreign currency. As a rule productive equipments are imported from credits to be paid with the products of the new plant. The postponement of the putting into operation of the new plant will thus adversely affect also the balance of foreign trade.

It follows that, in any concrete situation, the volume of investment that can be implemented within a reasonable time, at acceptable costs and with adequate rates of return is strictly limited. True, this volume is constantly increasing in a developing economy. It is also obvious that the capacities of technological projecting and of the building industry develop and become up to date exactly under the impact of the tasks ahead. In this sense the requirements set against them may and even should precede their actual development. It is, however, dangerous if this distance is great or increasing. This would lead, namely, not only to a rise in the costs of investment and production with all their adverse effects on economic equilibrium but also the even to the politically dangerous step of cancelling part of the investments under implementation.

The effects of such a step would be both economically drastic and politically demoralizing. The masses become disappointed if they see that in spite of their serious sacrifices economic growth fails to become a self-feeding and solidly progressing process and begins to stagnate after an initial dynamic phase. The enemies of the regime, and even the formerly loyal conservative elements may avail themselves of this situation and turn the desinterested, uncertain and drifting elements against the government.

In connection with the optimum rate of accumulation it should be remembered that a developing economy is extremely sensitive to the phenomena of growth. It is true that the economy of the more advanced countries is more swift to react to any change; but it is also true that in an advanced economy each economic action is linked by many ties with others and a complicated economic mechanism, owing to the transformability and the convertibility of resources, is able to distribute losses and sacrifices in such a wide circle that they are less felt. On the other hand, in a developing economy, the various economic activities are less interdependent, and the economic mechanism is less able to transform and convert resources.



Thus, its reactions to growth phenomena are also different. The developing economy must first get rid of the forces pulling it back in the direction of stagnation. It must accumulate, and the factors promoting accumulation—except for manpower—are scarce. Hence the troubles of growth appear in a cumulative form, and will be reflected in two sets of phenomena:

a) the former general, "average" scarcity of capital is transformed, in consequence of the priorities established by economic policy, into an uneven capital supply where some branches or projects are relatively better supplied, while scarcity is increasingly felt elsewhere;

b) the increased scarcity of capital in the branches not favoured by the economic policy, together with the strains of other factors, tends to extend its effects in a chain-like reactions to other spheres.

When the general scarcity of the growth factors is aggravated by such phenomena, it will be extremely difficult to pull the economy out of stagnation.

In order to avoid these possible troubles, efforts should be made to achieve an approximate equilibrium between the order of magnitude and structure of investments and the capacities available for implementing them.

With regard to the dangers described above, the situation to be expected, in the years after the launching of the growth process, must be foreseen and planned with utmost circumspection. Great care should be taken to understand and assess properly the role of the time factor, i.e. to find out the impact of the planned measures on the economy at different times, the time necessary for the full materialization of their consequences, i.e. the time when the new energies should be available to impart their impetus to the various potential energies.

If our expectations and assumptions—either owing to erroneous calculations or as a consequence of unforeseeable circumstances—are frustrated, it is expedient to "slow down" the growth programme. (The means and methods to be used in this case will be dealt with later.) A "switch into lower gear" is to be preferred to an economic chaos which may result from the failure of attaining certain concrete targets upon which rests a whole system of new and greater targets.

### Factors Influencing the Efficiency of Investments

The rate of the capital used for economic development to the resulting increment of national income is shown by the "incremental capital/output ratio" already mentioned. It expresses the volume of investment corresponding to a one per cent rise in national income. This rate does not show great amplitudes; in the United States and Great Britain it is 3 : 1 (related, of course to a longer duration of time), in some developing countries it is lower (for instance in Mexico), in others, higher (for instance in Ghana).<sup>25</sup>

<sup>25</sup> The figures for the capital coefficient are taken from J. Tinbergen's *Design of Development*. IBRD, Baltimore 1958, p. 99. His figures deviate to some extent from those of S. Kuznets in *Income and Wealth of the United States*. Bowes and Bowes, Cambridge 1952.

There is, naturally, a phase shift between the investment and the growth of the national income. It is therefore expedient—in calculations on the national economic level—to establish an average phase shift.

In the following considerations we shall neglect the problems connected with a more accurate definition of the notion of the incremental capital/output ratio, such as whether the concept of "capital" should be taken in a strictly material or in a wider sense, whether the increase of the gross or the net national product should be taken into account, whether land should be considered as "capital", and so on.

The value of the incremental capital/output ratio widely differs according to industries, whether they are more or less capital-intensive or labour-intensive. They vary also according to the countries since some countries must prefer the relatively "capital-saving" investments, others the "labour-saving" ones.

According to Leontiev<sup>26</sup>, the following volumes of capital are required by one value unit of output or performance in the various branches of American economy:

housing	8.2
transport	4.6
railway	3.3
health, training	2.7
agriculture	2.5
coal, gas, electricity	2.2
metal-processing industries	1.2
iron and steel industries	1.0
trade	1.0
services	0.7
textile industries	0.5
automobile and engineering industries	0.4
confectioning industries	0.3
bank, insurance	0.03

It should, however, be pointed out that the requirements of capital may be very different for the same industry, according to whether it is about to create a new plant or to increase the capacity of an existing one. On the other hand, there is a fairly constant relation between the total capital of the national economy (the fixed funds used in production) and the national product.

We may compare also the amount of capital per employed between the different industries and between the identical industries in the different countries. (This ratio is sometimes called "the coefficient of technological equipment".) Taking the same industries, this coefficient is five to six times higher in the United States than in India (in sugar refining it is ten times higher).

According to the computations of S. Kuznets,<sup>27</sup> if progress is assessed

<sup>26</sup> Quoted by J. Tinbergen, *op. cit.* (p. 203).

<sup>27</sup> S. Kuznets, *op. cit.* (p. 203).

as a technical factor, production is becoming increasingly capital-intensive in our days.

The capital/output ratio and its "incremental" form can be applied only in rough estimates. It may be used, for instance, for estimating the capital requirements of the various growth variants, and the probable consequences of the various investment decisions.

With respect to the developing countries many more calculations should be performed to render such coefficients suitable for the functions they perform in the advanced economies. In the developing countries some factors are in favour of a high capital intensity others in favour of a low one. High capital intensity would be required by the fact the most capital-intensive branches (housing, transport, public health, etc.) are the most backward. On the other hand, the possibilities of launching economic growth by labour-intensive methods speaks in favour of a lower capital intensity.

Let us add that in some cases the industrial production can be raised even without new investments, to wit by introducing multi-shift production.

Finally, careful considerations should govern the distribution of the available material resources between investments with quick or slow returns. It is clear that many slow-returning investments must be made (mainly to build up the infrastructure) in the developing countries. In addition, many such investments are necessary in which capital returns rather quickly once the establishment is accomplished, but the construction takes a long time and requires great material and intellectual efforts. Thus, for instance, the construction of irrigation works will ensure a sudden rise in output yet involves high costs, especially if it is intended to prevent the area from becoming marshy or alkaline, a danger that has destroyed so many irrigation cultures from the oldest times until the present days.

It would therefore not be expedient to concentrate most of the industrial investments in sectors of slow return and requiring much capital; the reasonable distribution of the available investment means also requires the development of less capital-intensive industries of quick return and lucrative operation because it is these that will increase budget incomes and widen the accumulation fund.

It logically follows that, beside the efficient selection of the means of accumulation, it is also necessary to establish the level of accumulation with respect to the other factors, to distribute carefully the available means between the different branches and to achieve quickly and economically the projecting and building of the new establishments.

This is the only way in which a favourable incremental capital/output ratio and, consequently, a sound and self-feeding growth process can be attained.

## CHAPTER 8

### Foreign Trade and International Co-operation in Economic Growth

When describing the criteria of economic backwardness we have already said that foreign trade is the neuralgic point of economic growth.

This fact can be traced back to several factors, to wit:

- a) most of the developing countries are, owing to their partly rudimentary partly deformed economic structure, extremely dependent on the world market,
- b) economic backwardness is, in the first place, not an absolute but a relative notion expressing the fact that the economies of the countries belonging to this category are less up-to-date, less productive and efficient than those of others,
- c) economic backwardness is concretely reflected in the exchange of commodities with the other parts of the world in the course of which the developing countries incur losses every day.

As soon as the growth process is started, the sensitivity of the economy to foreign trade increases.

The imports instantly rise because:

- a) in order to accelerate economic growth and to introduce contemporary techniques the capital goods must be imported from the industrially advanced countries,
- b) owing to the rapid growth of the population, to the rise of the purchasing power thanks to the expansion of employment, and on account of the backwardness of the production of consumers' goods, also the import of these rises rapidly,
- c) in the course of organizing the state apparatus and of building up an army new needs arise in the developing country which must be instantly met within reasonable limits.

Owing to the general scarcity of the growth factors, it becomes necessary to contract foreign loans and to hire highly qualified foreign experts.

It follows that in the first period of economic growth most of the developing countries become import-sensitive, i.e. the growth rate of imports exceeds that of the national income. Certain major countries, for instance India, may be exceptions to this rule; their imports rise slower than do their national income, yet the sensitivity of the growth process to foreign trade is felt in these countries, too. Naturally, in identical economic situations, as will be pointed out later, very different action norms can be developed.

In the following we shall discuss the problem of balancing the rise of import by the increase of exports.

## The Problem of the Balance of Trade and the Balance of Payments

It is clear that the balance of trade and of payments will be passive for long decades to come because:

a) the nomenclature of export goods of the developing countries is extremely narrow (tropic foodstuffs and raw materials) while the sphere of their import goods is necessarily very large;

b) they export commodities having inelastic demand into countries where the population grows relatively slowly whereas technical progress is rapid (and at higher technological levels the raw materials can be substituted almost unrestricted while they import elastic products from countries where the population grows very rapidly and development has, for the time being, taken an extensive course;

c) on account of their scanty economic power, they are unable to exploit the possible advantages on the world market while the disadvantages hit them almost with the force of elementary calamities.

The difficulties connected with exports (inelastic demand, falling prices on the world market) affect all developing countries (except for those exporting oil), including those called export-oriented. This is because the export-oriented character of these economies derives not from their ability for economic expansion but from their deformed economic structure, i.e. from their weakness.

The Geneva World Conference on Trade and Development also came to the conclusion that the gap in the balance of payments of the developing countries would be around \$ 20 thousand million in 1970.

These phenomena must be reckoned with even when economic growth is progressing relatively well. And it should be kept in mind that these economies are extremely growth-sensitive (as mentioned in the chapter on accumulation), their accumulation possibilities are very limited and are deeply affected by calamities; and that their population grows at a rapid rate. The presence of all these factors in an economy means that growth must proceed under economic and political tensions, and that an unexpected deterioration of any factor elicits cumulative effects, i.e. a series of chain-reactions liable to make the balance of payments even worse.

The sensitivity of the developing countries to foreign trade and the tensions it creates in the growth process are enhanced by the fact that a considerable part of the development energies must be imported in the form of foreign loan and foreign experts. Except the case of free grants and of cheap, long-term credits (for instance 2 to 3 per cent and 40 to 50 years), the costs of these imported energies constitute a growing burden on the balance of payments.

Under such circumstances, economic growth cannot be accomplished under "classical conditions of equilibrium". The equilibrium of the domestic economy will be unstable because both the equilibrium of the budget and the relative and dynamic equilibrium between purchasing power and available commodity stocks depend on so many conditions in the future as rarely come up exactly to expecta-

tions either in time or in magnitude. Hence, efforts for restoring the foreign-trade balance cannot resort to the internal economy since this is so overstrained that further burdens would impair its conditions of equilibrium. Moreover, the instability of the internal economy not only aggravates the situation in foreign trade but also jeopardizes the possibilities of economic growth. The foreign partners will not be inclined to grant long-term credits and will tighten the conditions of trade (short-term) credits. As a consequence of this, the country will be unable to ensure even the most indispensable imports, will have to cancel a large part of the planned investments and even so inflationary tendencies will be released.

In view of all this, the economic leaders should try to keep the deficit in the balance of foreign trade and payments below the tolerable maximum. But to this end, the planning of foreign trade must operate with a reasonable margin of reserves. In other words, it must not rely on the most favourable expectations, hoping that *all* major factors affecting foreign trade will act in the most favourable manner. It is well known that expectations which seem perfectly reasonable from the angle of each single factor are unjustified when anticipating the outcome of a process depending on a number of factors. For instance, if the income from exports depends on the harvest of the major crops and on their world market prices, it would not be reasonable to expect a good harvest in each of these crops and the world market price to remain at least unchanged.

A short-term equilibrium, or the consolidation of a tolerable extent of deficit is, however, not enough to solve the problems associated with the international economy.

As long as the economy is sensitive to foreign trade on account of its weakness and not on account of its expensive strength, and as long as the terms of trade do not improve, the increase of foreign trade means only the increase of loss for the national economy. With the almost constant deterioration of the terms of trade, the amount of goods to be exported in order to maintain an identical amount of imports will constantly have to be increased. Consequently, exports (including the transfer of foreign profits and the service of foreign loans) will acquire a growing share of the national income produced, and an ever decreasing share of it will serve the development of the internal economy. The deteriorating conditions for the economic circulation will result in a slowing down, stagnation and, finally, a setback, i.e. a growth crisis.

It follows that the developing economies are faced with two foreign-trade problems cropping up at different time scales:

a) to secure a permanent economic growth it is necessary to maintain the equilibrium of the foreign-trade balance, or at least, not to transgress the maximum permissible deficit;

b) the development and the structure of the domestic economy should be such as to permit constantly to improve the general conditions of the country's taking part in the international division of labour over a longer period, i.e. the extension of the foreign-trade activities should be prevented from involving growing losses.

The general conditions of foreign trade are obviously linked up with the distorted structure of the domestic economy inherited from the colonial period, as well as with the low technological level, the extensive character of the growth type and with the underdevelopment of the internal market.

It follows that the maintenance of equilibrium in foreign trade in the long run depends partly on the advancement of import substitution, i.e. on the diversification of economic activities, partly on the increase of exports, particularly if these go to countries where the terms of trade are favourable or display an improving tendency. Thus, important as the role of foreign trade may be in the economic growth of the developing countries, its problems cannot be approached and solved in themselves but only against a background of a long-term conception of economic policy and in a comprehensive system of decisions and actions based on it. In this respect it is essential to consider carefully all the direct and indirect consequences affecting foreign trade when making economic decisions concerning the development and structural changes of production, the advancement of agriculture and the distribution of resources. We must not, however, contend that the making and implementing of short-term economic decisions can always and completely be co-ordinated with the principles governing long-term economic development. Thus, it will occur that in order to restore the equilibrium of foreign trade or to avoid an intolerable deficit, the government must resort to methods contradicting its long-term economic concept. But, exactly therefore, all decisions should be assessed on two time scales, and those contradicting the long-term concept be considered as provisional. It would again be a mistake to believe that such "provisional" decisions could ever be dispensed with altogether. It may occur, for instance, that considerations of the foreign-trade balance require the temporary export of goods involving severe losses. Namely, if the deficit of foreign trade became excessive, this would endanger the economic growth itself, that is, the main target the long-range concept is serving. Thus, by temporary measures, though contradicting the long-term concept, we may defend the major lines of the latter. Only, we must not forget that the various methods applied to surmount emergency situations are never suitable for changing the objective factors and circumstances that have created the emergency situation.

### Foreign-trade Policy of Developing Countries

We may draw certain inferences concerning the foreign-trade policy of the developing countries from the existing relationship and interdependence between economic growth and foreign trade.

Exports must not constitute the dynamic element of economic growth in the developing countries. Their situation fundamentally differs from the economic position of Great Britain in the 19th century as against the rest of the world. At that time Great Britain embodied a greater economic, financial and political power than the countries in which she penetrated with her exports. Also, her export structure reflected a more advanced economic and technological standard than

what any of her trade partners had attained. Finally, she had a great impact on the institutions of international trade and of the capital market. This enabled her not only to raise her exports but also to realize all the extra profit resulting from the international division of labour. These statements are confirmed also by the fact that, from the beginning of our century, owing to the decline of her economic, financial and political power and to her technological progress becoming slower than that of her rivals, Great Britain has no longer been able to develop her exports at the pace of the 19th century. (For instance, in the first six decades of the 19th century, British exports grew by 6 per cent annually.)

The exports of the developing countries of our days are subject to fundamentally different conditions: the political and economic power of these countries is not significant, their impact on international trade and on the capital market is limited and their technological standard is lower than that of the rest of the world. Hence the profits of their growing exports are expropriated by the industrially advanced capitalist countries.

Thus the economies of the developing countries are characterized by a "defensive" attitude towards the rest of the world, i.e. the rise of their exports is determined not by the expansive forces of their economy (the reasons of this will be dealt with later) but by the ever rising amount of the indispensable imports.

That is why in the minor countries the rise of the exports is likely to exceed that of the national income, while in the major countries (India and certain countries of Latin America) exports rather lag behind the growth of national income.

Owing to the general underdevelopment of industry and to the low degree of internal economic integration, exports cannot become what is called a balancing sector either (see Japan), i.e. many commodities must be manufactured at home which could otherwise—in the first decades—be imported cheaper.

It is not expedient one-sidedly to develop "export enclaves", that is, such agricultural and raw-material sectors as produce exclusively for export and are isolated from the rest of the economy. Such distortions of the economic structure are due to the international division of labour inherited from the colonialist period. A distorted economic structure contains heterogeneous elements not inducing one another's development and having no or hardly any commodity exchange relations with one another. The further development of these sectors at the expense of others would worsen the distorted structure and its disadvantageous consequences.

A one-sided development of the purely exporting branches cannot create a national economy, in the true sense of the term, in which the sectors, economic units and areas are linked by thousands of interdependent economic processes. Relations of production, finances, distribution and consumption must underlie also the internal division of labour which is a precondition of the creation, consolidation and strengthening of the national economy. The choice of the agricultural crops and industrial branches to be developed should be made dependent—among other things—on their stimulating effect upon their environment. Thinking in terms of medium- or long-range periods it is not expedient to develop exports at the expense of rendering the economy even more sensitive to foreign trade.



It is impossible to maintain, over a longer period, a situation in which agriculture produces tropic foodstuffs for export whereas the textiles and clothing and other industrial articles necessary for the peasantry are acquired from abroad, and, on the other hand, the industrial workers produce raw materials for export whereas their food comes from abroad. In such an economic circulation the commodity exchange between town and village—which is the basis of the most simple internal division of labour—plays a very limited role.

Efforts should be made, therefore, to process part of the domestic raw materials at home. This would mean that the export volume of raw materials attainable with a given production capacity should be decreased by the amount of products processed at home. This is not necessarily unfavourable even from the angle of exports, since the reduced supply may involve a price rise. On the other hand, the creation of processing industries expands the domestic economic activity, develops contacts with the rest of the national economy, not to speak of the secondary and complementary effects on economic development whose sphere is also quite wide.

Nor is it expedient to direct agricultural development in a way to concentrate the available intellectual and material energies on a single export crop. This would have the indirect consequence that, owing to the extreme scarcity of means, insufficient energy would remain for the development of the production, transport and distribution of home-grown food for the population.

Any expected rise in the export incomes resulting from tropical crops should be collated with the increase in imports that must inevitably follow when, in spite of the rapid growth of the population and the rise of purchasing power, the production of home-grown food does not increase. Sooner or later, this gap appears in the balance of foreign trade. Moreover, as it has repeatedly been stated, tropic crops cannot be sold in unlimited quantities, and the increase of export is likely to involve a fall in prices.

On the other hand, state subsidies granted to agricultural production meeting home needs promotes the transformation of subsistence economy into market and money economy and creates contacts between the rural and the urban population.

### The Illusion of Closed National Economy

The unfavourable foreign-trade position of developing economies may, in some large countries, lead to an erroneous concept of autarchy or at least of an almost closed national economy. This attitude seems, at the first sight, to be logical since the economy can avoid the losses resulting from the unfavourable terms of trade. Large countries are anyhow less sensitive to foreign trade as most of the important raw materials can be found at home (provided the necessary research activity is available) and can be exploited by abundant manpower. As for the imports of food, their share in total domestic supply is not too large; therefore the

economic leadership may get the impression that it will not be too difficult gradually to dispense with them. Thus it seems that imports can be reduced to a certain amount of modern producing equipment, and exports, to a few kinds of products just sufficient to pay for the former. This type of economic model is not entirely closed, but the fringe of contacts with world economy is relatively narrow.

This model obviously has its advantages since it permits a substantial development in the national economy, mostly with labour-intensive methods. These methods involve the employment of large masses (partly within a labour service, as the case may be) and this mass employment may liquidate the indifference, apathy and helplessness inherited from the old society. If the establishment of this model is preceded by wide and radical social reforms, then the goods, however scarce, can be distributed equitably and the sphere of possible social tensions reduced.

Nevertheless, the labour-intensive methods rapidly enhance employment but raise too slowly the national income and the accumulation funds. Hence, in spite of an increasing utilization of manpower reserves, the standard of living remains stagnant or falls. The question is, how long the self-sacrifice and perseverance of the working people can be maintained if their standard of living fails to rise or rises but slowly. In war or in the case of a vital threat to the country, this is possible through a fairly long period, but in a quiet international atmosphere such an internal tension can only be kept up temporarily.

Another question is how far the given economy is capable—along its narrow fringe of contact with world economy—of making use of the rapid technological change of our days, when the decisive condition of agricultural and industrial development is an appropriate organization of science and technology rapidly forwarding the discoveries in the laboratories and research institutes directly into production.

If a country using the model of a quasi-closed national economy does not wish to lag behind the scientific and technological progress, it will have to extend the fringe of its contacts with the world. But in this case it becomes doubtful whether the other circumstances concomitant to extensive development (such as low standards of living, high political tension, etc.) can be maintained. In order to preserve an atmosphere necessary for extensive development, that is, the enthusiasm in work in spite of the lack of substantial material incentives, a special form of extending the contacts with the advanced world is usually adopted: sending of students, experts, etc. abroad in major groups. This method cannot be used unless the majority of the young intellectuals—governed by national enthusiasm or ideological devotion—are loyal to the country.

Such an extension of the contacts abroad is obviously better than complete reclusion, yet it cannot essentially and lastingly solve the problem of applying the scientific and technological results achieved in the other parts of the world. In the last analysis, a quasi-closed national economy may choose between two alternatives only: either to maintain its isolation and fall behind development or to join in the drifting current of world economy in order to speed up the development of the national economy.

## Import-saving Economic Development

The sensitiveness of developing economies to foreign trade can be reduced by giving an outspoken import-saving character to the development of industrialization and to agricultural development. This step is logical since the intensity of the sensitiveness to foreign trade depends on the magnitude of imports; it is this that determines the necessary volume of the exports, too. In some cases, however, although import needs are high (because domestic industry is backward), the actual export is even greater than what would be needed in order to pay for the necessary imports (because agriculture produces mainly such commodities as cannot be marketed at home). Therefore in the course of development, preference should be given to the manufacture of industrial articles and agricultural products that have an internal market yet have been imported. The import-saving economic development policy has, however, many opponents among economists whose main argument is that the commodities in question can be imported cheaper than produced.

This argument is not convincing since it proceeds from the assumption that it is worth while for a developing economy to export all the goods it is actually exporting. It should be remembered that import commodities are only seemingly cheap when they must be paid for with expensive export goods; and this exchange is known to repeat itself under ever worsening conditions. The greater exports are required—on account of the high level of imports—the more probable it is that many products will be exported the foreign sale of which is not only unfavourable for the national economy but is simply impermissible.

The counterpart of import-saving industrialization would be an export-increasing industrialization (in both cases we mean the export and import of finished or at least semifinished goods). Yet the latter variant can only be conceived in the case of products whose first costs are favourably influenced by the cheap and mainly unqualified manpower. And such commodities cannot or can hardly be found among the products of the so-called "dynamic industries": Cheap labour, however, may represent an advantage in the manufacture of textiles and certain labour-intensive handicrafts. It follows that the textile industry under favourable conditions may, in the course of development, evolve from an import-saving industry into an exporting branch. The handicraft products are mostly bought by the tourists.

The products of the new import-saving industries will be relatively expensive for one or two decades, since less experience in production and control is available than in the industrially advanced countries, and also the economic environment (roads, transports, loading, storing, packaging, etc.) is less developed. Endeavours should be made to build relatively up-to-date plants (this possibility being one of the chief advantages opening for a developing country as against the advanced ones where part of the equipment is already obsolete), but the whole economic environment cannot be changed from one year to the other.

This makes it clear that the import-saving industries must be protected over a long period from foreign competition coming from the advanced industrial countries.

Having dealt with the various forms of protectionism in connection with the financial questions, here we just want to point out that the protection of domestic products (either by customs duties or by import prohibition, quotas, etc.) need not to last for ever but for one or two decades. Having attained a certain level, any industry must achieve its further development by adapting itself to the direct impulses coming from the world market; isolation from these impulses has a rather adverse effect. It should also be stressed that the protection of the domestic products need not be linked up with the monopoly of the producing enterprise in question. A monopoly created in an artificial, administrative way the existence of which does not depend on how far and on what qualitative level it satisfies demand is not a healthy phenomenon. It should rather be attempted to induce a sound competition between the home producers for the better supply of the consumers.

The success and efficiency of import-saving industrialization is linked by many ties with the problems of the domestic market. In the large countries there are no problems in this respect because in theory the market can rapidly be expanded. In practice, however, the trends on the market of mass consumption articles depend, in the first place, on the purchasing power of the masses, i.e. on the distribution of incomes. If, for instance, the survivals of feudalism hinder the development of rural purchasing power, then the market of the industrial goods (except the articles of luxury) will not expand sufficiently and thus the industries, state-owned or subsidized by the state, cannot enjoy the economies of scale, and will produce at high costs. It follows that the success of import-saving industrialization is inseparable from a radical and purposeful improvement of income distribution.

In the case of small countries the situation is much worse since the market does not expand beyond a certain limit however evenly income is distributed. Therefore several countries belonging to the same region ought to co-ordinate their plans of industrialization. This could be promoted by organizing, on a regional basis, common markets the participants of which would give preference to one another's products over those of a third country. In other words, protectionism should be combined with the preferential treatment of the products of the countries belonging to the common market. In this case the economic policy of the individual countries could avoid such exaggerations and errors of the otherwise indispensable protectionism as would hamper the healthy course of economic growth.

### Import Saving by Agriculture

The policy of import-saving plays a significant part in the development of the production structure of agriculture. The economic decisions of this character must, however, envisage to influence the long-term processes rather than immediately to change the actual situation. In other words, the notion of import replacement in the broader sense of the word must not only comprise the present situation but also consider its further worsening in the distant future and take measures to avert it. It is not difficult to foresee that, with population rapidly growing, with the improve-

ment of purchasing power, etc., the demand for food will constantly increase and that, if the production of home-grown food stagnates or develops at a slower pace than this, food imports must rapidly increase from year to year. Thus, if economic policy keeps an eye only on the replacing of the present extent of food imports, its measures will always lag behind the actual requirements. Namely, almost every measure aimed at agricultural development takes a long time to bring its effects. Thus, by the time an otherwise well-planned measure succeeds in increasing the domestic supply of a certain food by the quantity that used to be imported (let us say, ten thousand tons), the demand for the same food will rise perhaps by thirty thousand tons. In this case, in spite of the increased home supply, the necessary amount of imports will grow two-fold. The great advantage of a long-term conception of economic policy (growth strategy) consists in the possibility of foreseeing future evolution, that is the effects and consequences of the present tendencies which carry in themselves the germs of further trends. This foresight (based on a careful extrapolation of the present tendencies) permits us to modify the factors influencing the concrete trends in the economic processes, to introduce new factors into the economic circulation, to activate new inducing energies. Only such a comprehensive system of long-range measures can be expected to enable us to achieve our targets and to prevent the development of factors that could upset the economic equilibrium.

The criteria of a long-term economic conception aimed at import-replacing seem already to be present in the agricultural policy of certain African and Latin-American countries. In some African countries food imports have not yet become constant and significant.<sup>1</sup> There is no doubt, however, that the one-sided endeavours to develop export crops—with the neglect of domestic needs—would, with the rapid population increase, result as early as in 1970 in an agricultural import exceeding the agricultural export of the countries in question. Nevertheless, an adequate production policy, with the help of up-to-date production techniques and the credits necessary for applying them, will enable most African countries to maintain their food import within tolerable limits. However, in the United Arab Republic and Lybia where, unlike the other African countries, there is a shortage in land and water, very great efforts are needed to control the further rise of food imports.

In Latin America there are still areas that can be brought under cultivation or made to yield higher crops. Yet the rapid growth of the population requires the intensification of agriculture and this may reduce the export surpluses supplied by the more extensive branches. If, for instance, the pastures are brought under cultivation, the traditional export of meat may be jeopardized.

On the other hand, in the Far East where the possibility of extending the cultivated area is extremely limited or almost nil, hectare yields must be increased by

<sup>1</sup> There are, however, some African countries in whose imports the agricultural products already play a significant role, such as the United Arab Republic, the Sudan, Tunisia, Cameroon, Ghana, etc.

all means available to the economic policy. Even so, we could hardly speak of import-replacing because, with the given rates of population growth and the present state of undernourishment, food imports must grow rapidly through many decades to come, in addition to a highest possible increase of hectare yields. Actually, this part of the world supplies only 28 per cent of the world's agricultural production<sup>2</sup> while its population makes up 53 per cent of that of the world. As a consequence of this the per capita consumption of carbohydrates, fats and proteins has fallen even below the level of the period between the two world wars and, according to FAO estimates, at least 500 million people are undernourished. Under such conditions the economic policy of these countries has no alternatives, until the present emergency situation is gradually liquidated.

In the short run, nothing but the internationally organized aid of all advanced countries, capitalist and socialist, is susceptible to mitigate the food gap in this vast part of our planet. (See Chapters 18 and 19.) In the long run, however, our present body of knowledge suggests three alternatives the combination of which will probably lead to solution:

a) the increase of hectare yields as mentioned before; the total result, however, will be rather moderate because in most Far Eastern countries yields are already relatively high;

b) the applying of the existing scientific achievements which permit partly the growing of some traditional crops and the production of animal meat, milk, eggs, etc. under "quasi-industrial" conditions more or less independent of the available land area, and partly the industrial production of carbohydrates, proteins and vitamins with the help of one-cell organisms;

c) a well-planned industrialization, aimed at both the substitution of formerly imported articles and the creation of export surpluses, thus enabling these countries to pay for their imports of food.

Let us now return to the countries of Africa, the Middle East and Latin America. Here, one of the consequences of the import-replacing agricultural policy in the broader sense of the term is that the possibilities of utilizing the comparative natural advantages are reduced, since it is necessary to produce also agricultural foodstuffs for which the conditions in the tropical countries are, at least at present, obviously worse than in the temperate zones. When assessing this tendency, however, we must not forget that the full utilization of the comparative advantages of the tropical zones has been anyhow made impossible by the conditions of the world market where the demand for tropic products is rather inelastic (partly because the population consuming them grows slowly, and partly because some of them can be replaced by synthetic products), whereas the demand for the foodstuffs produced in the temperate zones tends to grow almost unlimited (because the undernourished and rapidly growing population of the developing countries want them).

<sup>2</sup> S. Mudd: *The Population Crisis and the Use of World Resources*. Dr. W. Junk Publishers, The Hague 1964.

In view of the scientific achievements of our days, we cannot altogether exclude the possibility that in some distant future even wheat will be made suitable to be grown under tropical conditions. In the meantime, however, more practicable solutions should be considered. The amount of carbohydrate needed by the human body can be secured in various ways, for instance by the consumption of cereals, maize, rice, millet, pulses, potatoes, sweet potatoes, yam, banana, and so on. To a certain degree, it is possible to direct the habits of consumption (which will start changing anyhow) into a direction more favourable for the economic policy.

Yet the possibilities of import-replacing in agriculture essentially differ from the import-replacing conditions evolving in industrialization. If industrialization is built upon domestic raw-materials, the developing country has, at least, no comparative natural drawbacks related to other countries. It does have, of course, others residing in various economic and technological factors such as lack of capital, underdeveloped environment, fewer qualified experts, a less developed scientific background, etc., but these can be reduced with time. The policy protecting domestic industry is meant to give time for the new industry to reduce the comparative disadvantages.

In agriculture the situation is worse because in the production of many foodstuffs the developing countries have natural disadvantages added to which are further drawbacks residing, as in the case of industry, in economic and technological factors.

### **The Impact of World Economy on the Agricultural Production of Developing Countries**

These natural comparative disadvantages of tropical agriculture are enhanced by the fact that the distribution of the population of the world fundamentally differs from that of its food production. All this must evidently be taken into consideration when shaping the agricultural policy of the developing countries. They must draw the logical consequences of the present situation in world economy, though it is not their fault that they are compelled to produce also such foodstuffs for the production of which their natural conditions are not favourable. It seems therefore reasonable—as will be expounded in the last part of this monograph—to look upon the food supply of mankind to a certain extent as a world problem in the decades to come. Thus it seems imperative to give the maximum help for raising agricultural production, especially the hectare yields, in the developing countries; first of all to the peoples of the Far East who are in the most precarious situation. We wish to stress that we attribute much greater importance to aid offered for the development of production than direct grants in the form of food. The latter are necessary to bridge certain serious gaps resulting from the underdeveloped state of agricultural production. It may, however, be assumed that by ensuring such means of production as fertilizers, seeds, irrigation equipment

and scientific research capacity, personnel and experimental stations etc., more food could soon be produced than the amount given today in the form of aid.

When describing the foreign-trade problems of the developing countries, we have tried, in the first place, to show the relationship between economic growth and the grave foreign-trade situation. In this sense foreign-trade policy is an integral component of economic policy because in an open and import-sensitive economy virtually no such decision can be conceived as would not affect foreign trade directly or indirectly. The sensitiveness of a developing economy to foreign trade, or rather its vulnerability, can only be reduced by sound economic growth. The terms of trade can be radically improved only by the development of the technological conditions and by changing the economic structure. That is why the long-term economic conceptions and all short- and medium-term economic decisions must consider the consequences they have for foreign trade. No such industries should be developed (apart from some exceptional cases) as continue to be a burden on the balance of payments of the country for a long time after being launched. On the other hand, industries saving substantial imports should be promoted. The export structure should permanently be improved in order to render the terms of trade more favourable.

### National Economy and Foreign Trade

A foreign-trade policy closely fused with the problems of the national economy may efficiently promote the acceleration of economic growth.

From the fact that foreign trade is the neuralgic point of the developing economy and of economic growth we must not draw the inference that the problems and difficulties can be overcome by foreign-trade methods in the narrower sense of the word. Foreign trade, when dissociated from the specific problems of the national economy and from the concrete circumstances of economic growth, not only impedes but even obstructs the necessary accumulation and concentration of the forces of internal economy over a medium-term period, not to speak of a longer perspective. Such a foreign trade becomes an enclave within the national economy since it has no inductive effect on its economic environment. The exports, considering the best chance, grow rapidly but owing to the slow growth rate of the internal economy, the imports rise even more vigorously. On the other hand, the increase of the traditional exports is usually accompanied by a fall of the attainable prices and consequently by the worsening of the terms of trade.

In this situation the economic circulation repeats itself under deteriorating conditions, and there is no possibility to withdraw and refeed to other places the energies that would alter the nature of the circulation. In this case the increase of imports requires the raising of exports, that is, the available material means must be reinvested in the export branches while the production for home supply fails to develop. Owing to the stagnation of the home supply it is necessary to go on



increasing the imports which requires further efforts to raise the exports and this adds up to the deterioration of the terms of trade, in other words, to the further dwindling of the development resources.

Foreign-trade policy fed on the organic and constantly changing processes of the national economy and efficiently promoting economic growth may, on the other hand, become an inductive factor of development because it can permanently give new impulses to, and introduce new combinations in, the economic circulation.

### How Can New Energies Be Effectively Introduced into a Developing Economy?

We shall now examine such elements of the international economic relations and conditions as are introduced into the circulation of the developing economy in the form of new stimulating energies. We have already analysed the problems of commodity exchange, that is, foreign trade in the narrower sense; but a significant part of the development energies does not go to the developing economies in the form of commodity exchange although their granting, utilization and repayment are in most cases connected with commodity flows.

We have discussed various aspects of international credits, free grants and technical aid. How, why and in which national economies do surpluses accumulate that are available for such purposes; how are they utilized, what kind of changes in these surpluses may be expected in the coming decades; why and how are the countries, possessing such surpluses, interested in transferring these development energies to the developing countries? We shall try to answer these questions in the last part of this monograph, after having investigated the correlation between the present situation in world economy and the economic growth of the developing countries.

In the present chapter our starting point is to analyse the effects elicited in the developing economies by the development energies coming from other parts of the world, to designate the most effective "forms of energy transfer" and to enumerate the economic and political problems raised by these foreign energies.

The growth problems of the developing economies, as has been pointed out earlier, are aggravated by the fact that there is a general shortage of development energies, that is, of factors promoting growth. We have repeatedly stressed that the real problem lies not with the present backward level and structure of the economy but with the lack of development energies, i.e. with the fact that very little surplus is created and very few are the energies that can be withdrawn from the economic circulation to be reintroduced later in a more efficient form.

It follows that the economic growth of the developing countries will not be sufficiently rapid and safe. We have seen that there exists an objective correlation between the volume of the investments and the growth rate of the national economy. Thus, small investments can induce only a slow growth rate. Moreover, part of the moderate resources will get lost for economic growth because of elemental

calamities, mistakes made in planning or implementation, political tensions, etc.

Hence each energy transfer is economically useful if it liquidates or mitigates provisionally the bottleneck of the growth factors in some field.

### General Scarcity of Growth Factors

In connection with the growth problems of the developing economies we have already mentioned that in an underdeveloped economy not only one or two factors are lacking, but there is a general or almost general shortage of interdependent factors influencing growth, i.e. a comprehensive system of bottlenecks. There is a shortage not only in capital and in possibilities of its further accumulation but also in qualified manpower, technological and organizational know-how, as well as transport and other services promoting production, in projecting and implementation capacities, and even in markets.

In most countries there are only two factors available in comparatively large quantities: potential energies residing in natural endowments and unskilled labour. Their increasing utilization for the acceleration of growth involves a more extensive use of the scarcely available factors. From the general scarcity of the interdependent factors influencing growth it follows that a temporary liquidation or mitigation of the scarcity of one single factor—which can be achieved in connection with an actual task or for a short period—yields but limited results and does not allow the efficient utilization of the resources coming from abroad. If, for instance, a country is granted credit either in free convertible currency or in capital goods, but no qualified manpower is available, the level of the infrastructure continues to be low, consumers' goods are not sufficient (and must be imported) to match the purchasing power raised by the investment and the given internal and foreign marketing possibilities do not permit the full utilization of the new production capacities, then the modest results achieved in the production sphere will have to be paid for by a serious economic disequilibrium, susceptible to reduce the future accumulation and rates of growth.

It should be remembered that the accumulation capacity is an aggregate economic factor reliably showing the general level and structure of the given economy as well as the efficiency of the circulation over a longer period. If, however, part of the accumulation derives from abroad, i.e. not from the organic processes of the internal economy, then the factors and processes affecting the magnitude of accumulation will not automatically adapt themselves to the new situation created under the impact of external factors.

Thus, for instance, the projecting and implementing capacities will probably remain behind the additional increase of investment possibilities resulting from the foreign credit, unless specific and preliminary actions are taken. In such cases the execution of the project lasts longer, making the investment more expensive (and even technologically obsolete at the time when it is put into operation); shortages and bottlenecks will appear in fields associated with the investment which can

only be overcome by new imports or by cutting other development targets. The situation is aggravated by the overburdening and disorganization of the building industry, causing also other establishments to fail to be completed on the planned date.

In view of the interdependence and general scarcity of the growth factors, the developing countries need foreign aid planned in a complex form to cover all or most of the scarcely available growth factors. One can, naturally, not expect the creditor, in addition to granting the loan, to provide for qualified manpower, services, implementation capacities, consumer goods required by the rise of the purchasing power and markets for the goods of the new plant. Yet it is obviously indispensable to co-ordinate the foreign loan with the trends in domestic economy, i.e. the actions taken should be both complex and co-operative.

### Foreign Credit and Domestic Economic Policy

It is often said, and with reason, that the foreign aid or loan should be incorporated into the economic conception (plan) of the developing country. Without this, enclaves will again develop which do not stimulate the advancement and integration of the internal economy. Co-ordination is necessary in the sense that the foreign aid should supply the resources that cannot be secured at home without detriment to the whole process of economic growth. Of course, domestic economy should make every effort to secure the necessary resources in all fields where forces can be concentrated. In the last analysis it is quite clear that the development of every economy must be based on the efforts, abilities and sacrifices of the population of the given country.

For a better understanding of the question it is necessary to submit to a detailed analysis the economic and political problems connected with foreign aid.

Let us first assume that the foreign creditor supplies the whole equipment (machinery) of an industrial plant, further, that the plant in question produces semi-finished goods of the heavy industry (aluminium in sheets) the basic material of which has so far been bought by the foreign creditor (bauxites, aluminium oxide).

In this situation the following problems arise:

- a) the conditions, time of expiry and mode of paying back the credit,
- b) the hiring of highly qualified experts (engineers, technicians, economists, business administrators, foremen and skilled workers) necessary for designing the plant, for supervising its construction and for putting it into operation,
- c) the securing of the communal services necessary for the construction and the efficient operation of the plant,
- d) to meet by consumer goods the rise in the purchasing power due to the extension of employment resulting from the construction and operation of the new plant,
- e) to meet the requirements in foreign and local currency arising in connection with the previous items,
- f) to secure markets abroad for selling the products and/or to create an internal market for them.

If the foreign aid is limited to the supply (on credit) of the machinery, then

- the government of the developing country will have to secure about three times the value of the equipment from internal sources,
- in want of qualified experts, the construction will take more time and the new plant will operate at a loss for a longer period,
- the government will have to import a larger quantity of consumer goods (i.e. incur new expenses in foreign currency),
- the semifinished goods can be marketed with difficulty, and the exports will incur losses.

A developing country short of resources is obviously unable to meet all requirements enumerated above. Let us investigate now the conditions under which it could efficiently use foreign aid by doing its best to tap its own resources.

Experts for the projecting of the plant and supervision of its construction should be provided mostly by the creditor. (Besides, it is also his interest to make sure that his money is invested in an economically efficient way, and thus its repayment is ensured.) This applies to part of the experts necessary for the operation of the plant, but their majority should be secured by retraining home specialists of secondary or primary qualification. This should be started (either abroad or in a training centre established at home for the purpose) years in advance of the putting into operation of the plant.

The higher qualification gained during training and the experience acquired during the operation of the new plant will sooner or later enable the domestic leaders to replace the foreigners.

Implementation requires, besides some qualified leaders, mainly semiskilled and unskilled workers; the latter are abundantly available in the developing countries. Hence, for the development of communal services the labour-intensive methods should be used. Yet the consistent assertion of this postulate has its general and specific limits. The most frequent general limitations are as follows; the adaptation of labour-intensive construction techniques to the conditions of our time has not yet developed; there is a shortage in middle cadres, chiefly foremen; in most countries the taxation system favours mechanized techniques. The specific limitations consist in the necessity of adapting the pace of construction to the length of time available for implementation. This requires sometimes the setting up of a complicated time schedule, e.g., certain permanent roads or preparatory buildings must be ready for the conveyance of the building materials, and also water supply must be secured. But anyhow when labour-intensive methods are applied, the rate of construction will probably lag much behind the pace at which the mechanical equipment could be brought to the site, built in and put into operation. Thus construction would become a bottleneck and it may become necessary to secure a certain amount of mechanization of the building industry permitting to synchronize its work with the rest.

Also, the expansion of employment raises the effective demand which can only be met by producing or importing more consumer goods.

The additional purchasing power is divided mainly between food and industrial articles. The increase of the demand for food is fairly equal to the total consumption of the people who work at the construction of the plant and, later on, operate it. Namely, the rural communities from which most of this manpower is attracted to the constructions and the new industry are known to live on a low standard and therefore, after the departure of a few of their members, are not likely to reduce their former aggregate consumption. Food production, or the sum total of production and imports as has been pointed out earlier, must anyhow be raised vigorously (by about an annual 5 per cent) considering also the rapid increase of the population. A substantial part of the annual increment must be allotted for the purpose mentioned above. Since the agricultural regions most capable of increasing their food production are sometimes situated at considerable distances from the main building sites and future industrial centres, this task may prove rather difficult. Thus it is desirable to raise the production of the agricultural area surrounding the new construction sites. This also requires investments in advance, the improvement of the water supply, a large amount of fertilizers. On the other hand, if home production is stagnant or insufficient, food must be imported, not only during construction but also through a certain period after the new plant is put into operation. And, since for the time being the developing countries cannot reckon with the spontaneous economic forces acting in the direction of meeting this kind of demand, all these organizational activities have to be undertaken by the government.

If the additional demand of food prompted by projects in question substantially exceeds what can be ensured from home production, part of the foreign aid must be secured temporarily for food imports. In such cases it seems expedient to deposit on a blocked account the amounts obtained from the sale of this food and to use them for further investments, e.g. for promoting the agricultural production in the areas in question.

Also industrial articles will have an important share in the rise of demand, in the increment of purchasing power, and their production must be enhanced in some form. To this end there are various alternatives, e.g. the creating of state-owned textile plants, an investment promising relatively quick returns. If, for lack of capital or of time, this alternative is not practicable, at least the handicrafts should in some way or other be stimulated to increase their production. Obviously, the two alternatives are not equivalent; a properly operated state-owned textile plant ensures far greater possibilities of accumulation than does the taxation of the private sector. And also, state industry should be built where a rapid growth of the market can be expected. Yet the development of small-scale industry of artisans also involves several advantages and, what is the most important in this case, it saves imports, which is a significant aspect in countries where foreign currency is a tight bottleneck.

Difficulty may arise in marketing the semifinished products of the new plant. It is therefore reasonable that the foreign enterprise granting credit, well versed in market problems and being well backed, should supply aid also in this respect.

Solutions permitting the repayment of the credit with part of the products of the new plant are in principle favourable for the developing country. This period of amortization usually takes 6 to 8 years and during this time good relations can develop between the manufacturing enterprise and the buyer.

The creation of the domestic market is also an intricate problem. As we have assumed, this begins by founding an enterprise producing semifinished goods (aluminium sheets, etc.) for which there is little or no demand at home. The manufacturing industry that could transform these goods into finished ones is still lacking. Economic policy could then decide for the following sequence of actions: the domestic manufacturing plant or plants should be ready to start operation by the time when the repayment of the credits with products is finished. Since, however the total quantity of the semifinished goods cannot be expected to be processed at home for a long time to come, efforts should be made to preserve the foreign markets once acquired. From the date when amortization with products begins, the export structure substantially improves since, in addition to the basic material, also semifinished goods are exported. By the time when also the processing plant starts operation, a home market for the finished goods must be created. Besides, the same finished goods can be exported to other developing countries. (Naturally, in the first place, into those ensuring preferential treatment for these articles, in the spirit of reciprocity, within the framework of a kind of regional common market.) Such a trade between the developing countries must be enhanced because this is exactly the type of exchange where none of the participants incurs disadvantages. In the present state of affairs the developing countries could sell their finished goods to the industrially advanced countries only with considerable losses. (In a certain sense handicraft products are exceptions to this rule because the manpower used for their manufacture cannot yet be utilized alternatively, and because the consumers living in the mechanized world of the industrially advanced countries appreciate hand-made articles.) The industrial level of the developing countries in one and the same region and the average costs of their industries are relatively equal. There is no doubt, however, that the enhancement of the trade between the developing countries requires the solution of several difficult questions, among others, that of the trade credits.

We have so far tried to elucidate what kind of foreign aid the developing countries would need in order to accelerate their economic growth. Our answer suggested to include the aid (credit) into the process of economic circulation, to observe its effects upon the enhancement of the growth energies as well as the demands and needs it directly or indirectly creates. These effects, requirements and needs induce then new processes within the economic circulation and require the regrouping of the existing resources. Our analysis has confirmed the preliminary statement that where there is a general scarcity of growth factors it is not sufficient to alter one single or two to three of them since a developing economy has no such expansion potential as would permit the adaptation of the economic processes to the increased factors.

## The Complexity of Foreign Aids as a Guiding Principle

Relying on this statement we can draw the further inference that the developing countries need a complex aid from abroad which

- extends over all or most of the factors influencing growth,
- can be adapted to the growth pattern of the internal economy,
- is granted under sufficiently favourable conditions not to make it an insupportable burden on the balance of payments when economic management is sound and capital is utilized efficiently.

If we accept the premise, often voiced and proved (and to be backed up by further convincing arguments in the forthcoming chapters), that the economic growth of the developing countries is the most serious problem of the second half of the 20th century, then international aid should be treated as a world problem susceptible to either ease or aggravate the tensions in world. It follows that no action in this field can be looked upon as the affair of two countries (of the creditor and the debtor) since they are meant to liquidate the uneven distribution of the development energies of the present world in order to ward off later catastrophes.

It is clear that the aids granted so far do not meet the requirements enumerated and expounded above.

a) Most aids have no complex character and are only suitable to liquidate the bottlenecks of one or two growth factors. They supply, for instance, equipment for a single establishment without even considering the demands and needs necessarily created by this act. Thus only the available capital increases but not the capacity of the country to utilize capital reasonably. The lack of qualified, in particular of highly qualified, manpower is one of the greatest obstacles to the proper utilization of the credits.

b) A large part of the aids goes to where it is relatively easy to attain spectacular "results" and not into the sectors of production where they are most bitterly needed. To build up the infrastructure is, naturally, a very important task in the developing countries. It is also true that the development of higher education and public health is a primary requirement. Nevertheless, even the best infrastructure is unable to boost development without the growth and expansion of economic life, without new producing plants. Unfortunately, some economists and educational experts still would separate production and education as independent spheres. In reality, it is life, the concrete participation in economic and production activities, that proves to be the best educator of both individuals and societies. It follows that without the development of productive activity the greatest investments into the infrastructure remain ineffective or, better said, will have only one effect: they will rear an unhappy, dissatisfied, inactive intelligentsia uncertain of itself.

c) A considerable part of the foreign aids do not stimulate the developing countries to mobilize their own resources—which would be the most decisive precondition of stepping up economic growth—but rather to increase their

requirements for further aids and imports. The beneficiary country is, in most cases, unable to secure the local costs from domestic sources. Hence it is faced with two alternatives: either to dispense with the aid or to try to use imports for meeting needs that could be satisfied by mobilizing domestic resources; and this almost automatically ensures priority to import-intensive projects. This is the situation in agriculture where it is easier to obtain food grants than to have a programme increasing agricultural yields financed. Similarly in the case of road construction the developing country ought to solve this task by applying labour-intensive methods, yet it is incapable of financing the rising wages; hence it is given machines on credit. In consequence, in many developing countries poor in capital the roads are built with capital-intensive methods.

d) There is no adequate co-operation between economic aid (loan) and technological aid. The latter essentially comprises two interconnected actions: the sending of qualified manpower and the covering of their expenses. Considered from the financial aspect, technical aid is an "earmarked" amount of money which is to be used for hiring qualified manpower from the granting country. Technical aid may play a very important part in the acceleration of economic growth since both parties must agree in the concrete purpose of the action. Moreover, every country feels a greater moral responsibility for its exported manpower than for its exported commodities. This is quite obvious since the experts selected by the government organs or by the creditor group of the sending country are regarded in the receiving country as the representatives of their nation; their activities, knowledge, humaneness and sense of responsibility will become a standard governing the opinions formed on the educated layers of their country. Within the framework of technical aid there are operative technicians, physicians, agronomists, etc. as well as highly experienced advisers. These may play an important role in organizing and determining the spheres of competence of the various state and social institutions, in the introduction of new methods of work and so on.

In most cases, however, the technical aid has little or nothing to do with the implementation of the various economic projects, that is with foreign credits or other forms of aid. Often the technical aids are granted by countries other than those granting economic aid. Some countries may have excellent specialists but cannot afford to cover their expenses abroad for a longer time. It may happen that the technological projects elaborated with the help of the experts sent by one country will be implemented with the financial and economic aid of another. It is, however, not ensured that projects already elaborated or being close to solution within a technical aid should be known or imparted in due time to international organs or the countries which are expected to finance their implementation.

e) The specific situation of the developing countries is not always taken into consideration when establishing the financial conditions of the credits. What these countries chiefly need are low-interest (about 2 per cent) and long-term (about 40 to 50 years) credits. Of course, there is but a very small difference between credits given at such conditions and the completely free grants which do not en-



cumber the anyhow overstrained balance of payments of the receiving country. And for the country granting the aid, the relatively small difference in sacrifice may be more or less offset by the prestige of a bestower. According to J.M.D. Little's data<sup>3</sup>, Africa, for instance, received 70 per cent of all aids in the form of free grants in 1962/63; and in the same year 62 per cent of all British aids were free grants.

However, beside long-term and low-interest credits there are high-interest middle-term credits.<sup>4</sup> Great Britain, for instance, does not grant cheap credits for fear they should undermine the interdependence of interest rates; British credits are granted generally for 20 years at 6 to 7 per cent interest.

The task arises to find out why the policy of foreign aids is so little efficient and how their efficiency in accelerating economic growth could be increased. When talking of the efficiency, i.e. optimisation of the aids programmes, we invariably proceed from the economic interests of the developing countries. We consider efficient an aid that promotes, in the best possible way, the economic growth of the developing countries concerned and not one that yields higher profit to the creditor.

### Why Are the Present Aids Not Effective?

The low efficiency of the foreign aids can be traced back to four factors:

a) Most developing countries have not yet evolved the long-term conceptions of economic policy that would neatly determine the place and role of the foreign aids within economic growth.

b) The way of economic thinking of the bodies and individual leaders controlling the economic life of the developing countries is not sufficiently circumspect and comprehensive.

c) The intricate growth problems of the developing countries are not yet sufficiently known to the states and international agencies granting aids and credits. They are inclined to apply, also in this special field the systems, rules and usages of international financial relations that have developed within the economic relations between the advanced capitalist countries.

d) In addition to the international economic, financial, educational, etc. organizations, in our days also various states, foundations, non-profit organizations and business enterprises conduct activities in order to supply economic, technical, educational, medical, etc. aid to the developing countries. The task of the states would be to co-ordinate all these activities, to subordinate them to certain common moral, scientific, economic and technical principles. Up to now, the competent international organizations have not made appropriate endeavours in this direction.

<sup>3</sup> J.M.D. Little: *Aid to Africa*. Overseas Development Institute, London 1964.

<sup>4</sup> J.M.D. Little, *op. cit.*

Analysing these factors we see that in the course of developing a long-term economic conception (growth strategy), the government of a developing country has to determine the projects which it will be capable of implementing unaided, as well as those for which it will need foreign aid during the years or decades to come. As we have seen earlier, the economic growth and development of every country depend, in the first place, on the efforts, abilities and sacrifices of its own population. But in addition to these, the decisions determining the growth strategy must take into consideration also other possibilities. If economic contact with some part of the world becomes part and a motor of internal economic development for several decades, it must be given continuity. In other words, decisions of economic policy should be made dependent on principles and attitudes considered valid for a longer period and following elastically the changes in the circumstances with relation to the given contact. These principles and attitudes should embrace the political and economic backgrounds alike. Politically, the starting point is that the liquidation of the one-sided economic dependence of the developing countries, i.e. of their dependence on the economic institutions of the capitalist world, is a function of their economic growth. If a developing country as an independent national economy rapidly prospers, then its dependence diminishes even though it maintains more intensive contacts with more countries than before. And if the national economy is stagnant, its equilibrium is impaired and its economic targets are not attained, then its dependence on foreign countries will increase even though it closes its frontiers temporarily and severs all international relations (provided this is possible at all). From the other angle, the aims of economic growth and its processes should be outlined and shaped so that the national economy should rely less on disadvantageous foreign relations. Finally, beside building up new contacts and accepting aids under favourable conditions, the government should gradually and resolutely reject such aids as are:

a) aimed at rendering permanent the dependence of the government on a foreign country (for instance in the form of an aid bargained annually to cover the budget deficit),

b) aimed at introducing the foreign monopolies as enclaves into the body of the national economy (the economic power of some such monopolies being often greater than that of the government),<sup>5</sup>

c) aimed at making exclusive and direct investments (as it was done in the colonial period) without the right of the government or home capitalists to participate,

d) increasing the foreign-trade sensitiveness of the country and failing to stimulate the internal forces of the national economy.

The consistent observation of these principles, i.e. the acceptance only of aids promoting the fast growth of the national economy in a long-range period and the

<sup>5</sup> Professor F. Perroux has convincingly proved that the large enterprises, in their present form and governed by their principles of operation, lead the economic development of the small countries in an undesirable direction in the long range. See, F. Perroux: *Grande Firme et Petite Nation. Rapport sur la Politique de Coopération avec les Pays en Voie de Développement*, Paris 1966.

rejection of the neocolonialist aid types described above which would perpetuate and deepen the conditions of one-sided dependence, embodies an active anti-colonialist attitude.

As soon as the developing countries have grown capable of

- building up economic contacts with many partners, often with such having opposed interests,
- strengthening their economic ties with the socialist countries—also for political considerations,
- dovetailing and co-ordinating their foreign trade and aid policy to a growing extent,

- shaping an internal policy of national unity which does not permit the neocolonialist powers to interfere,

the developing countries should accept the politically and economically advantageous aid in a suitable form because in doing so they accelerate their economic growth.

These political and economic principles should be clearly formulated in the long-term conception of economic policy. This would exempt the government from having to revise its aid policy radically over short periods. The present radical changes of leadership in several developing countries can be traced back, beside the changing political power relations, partly to the unexpected political and economic effects of some foreign aids. Frequent changes in the aid policy may arouse doubts concerning the policy of the government in general. Therefore in order to kindle the interest of the money and capital market the government often has to make essentially greater concessions than would otherwise be rational.

Continuity and consistency in this field are of greatest importance and should be maintained also in the case of a change in the regime since development aids will be needed for decades to come. (This rule does not apply to the case when the previous government had permitted the economic relations to develop in the neocolonialist direction, under conditions degrading the national dignity and neglecting the long-range interests of national economy.)

### The Expected Internal Effects of Foreign Credits and Aids

It is of paramount importance that the economic leaders of the developing country should foresee the major economic problems and processes associated with the aid conditions. We have already mentioned them: the demand for qualified experts increases, the implementation (building) capacities have to be multiplied, communal services must be secured and the increased purchasing power is to be matched by marketing more food and industrial commodities. Various alternatives should be elaborated for the solution of these problems and the most favourable one should be chosen. This requires great intellectual efforts from both government organs and the banks, these being the solid channels through which the foreign credits (aids) flow into the country.

Within and through the domestic banking system the various foreign aids can be co-ordinated with one another and with the interest of the national economy. For instance, if a plant is established for producing semifinished goods (e.g. rolled aluminium), the increment of domestic purchasing power cannot be offset by the products of the plant itself, and a certain additional quantity of consumer goods will have to be marketed, as has been pointed out above. If then, for instance, the necessary textile goods cannot be secured from internal sources, it is expedient to raise credits that would permit the establishment of a new textile plant. If, in turn, the necessary food cannot be secured, purposeful enquiries should be made for agricultural credits permitting to raise agricultural production, if possible, in the regions of constructions.

The complex planning of the processes would have a particular importance in the developing countries. This is necessary and possible because, owing to the relative underdevelopment of the economic level and to the lack of spontaneously acting economic factors feeding growth, every direct or indirect activity concerning the creation of a plant or a production unit must be initiated in a manner permitting to co-ordinate the different processes.

When drafting the plans, the desired long-range development of industrial structure should be worked out and the construction of the different plants in different periods looked upon as individual stations on the road leading to this long-term target. Needless to say, the target itself will have to be modified from time to time according to the requirements of technological change. The long-term plan should also outline the desired development of a suitable environment for the future industries. Even with a few major industrial establishments, a whole system of associated economic processes can be evolved. When the time-table of these economic processes is broken down into a shorter period (for instance 3–5 years), the medium-term economic conception, that is, a national economic plan, can be compiled. Even though such a plan is not intended to be made public, it is necessary to elaborate it to find out whether the individual measures and magnitudes are well co-ordinated.

This kind of planning, for which part of the necessary international starting points would be ensured by the banking organization, would be a co-ordinated assessment of needs and resources, because the major establishments would be designated on the basis of the desired structure of the national economy, with due consideration to the potential energies, while the other establishments would be determined, and certain processes anticipated in compliance with the requirements elicited by those major establishments. When a plan is compiled in this "organic" manner it is much more easy to detect the gaps to be filled by foreign aid, and even a foreign partner is found easier when the government is in a position to refer to such a plan.

## Problems Associated with the Behaviour of Advanced Countries

The countries granting aids are usually not aware of the internal development problems of the developing countries and also their actual surpluses often materialize in a form (e.g. in kinds of equipment) the developing country does not need. Every country wishes to give away such surpluses as it can dispense with. What is more, the present bilateral system of aids does not permit the conversion of the goods available from one country to the more desirable goods of another. We have said that the aids are not co-ordinated either between the industrially advanced countries or between the developing ones.

In connection with every foreign aid, evidently also the interests of the granting partner must be considered. But the interests of an advanced country, as a creditor, cannot coincide with those of a developing country chiefly concerned with the problems of its own economic growth. Hence it is indispensable to co-ordinate the interests. Another thing to be remembered is that the practice and mechanism of the international capital and credit market took shape in the early days of capitalist development in the course of the contacts between the advanced industrial countries. The character of these contacts was that the economically somewhat more advanced countries granted more credit to the less advanced ones than vice versa. Nevertheless, the economic levels of the advanced countries were approximately the same, or were rapidly levelled up; and often a country that had been weaker at the beginning overtook a stronger one. Finally, the capital flow was a two-way process since even in the advanced countries certain industries lagged behind the average level.

Credits offering "complex aid" were not needed since most of the growth factors were available in every country (qualified experts in large numbers, advanced services and communal establishments, and an economic environment capable of absorbing external impulses). Moreover, the advanced countries could contract, without impairing their balance of payments, credits with a higher interest rate and for a shorter period than what the developing countries can undertake. All this shows that with respect to the developing countries the "classical practice" of the international capital and money market needs a substantial revision.

This applies not only to the banks and other financial institutions operating in the leading capitalist countries but also to such international banking organizations as the International Development Association (the World Bank) and the International Monetary Fund (IMF) which do business with developing countries.

The international economic organizations and agencies should recommend and promote the development of a sounder practice, more suited to the requirements connected with starting economic growth in the developing countries.

## The Tasks of International Organizations

It is of paramount importance that the international organizations undertake an increasing role in the elaboration and control of a system of foreign aids aimed at accelerating the economic growth of the developing countries. To this end the international (multilateral) organizations should endeavour

1. to have a growing share in the various aids going to the developing countries,
2. to take part in the conversion and co-ordination of the material goods involved in bilateral actions,
3. to organize the publication and ample documentation of bilateral actions aimed at scientific and technological assistance.

Ad 1. To this end the aid funds of the international organizations should be increased and their utilization made more efficient. The possible sources of their increase will be discussed in the last part of this monograph. Here we just make a brief mention of the fact that the reduction of the armament expenses and the allocation for aid purposes of one per cent of the national income of the advanced countries would add up to decisive changes in this respect.

The increased aid funds can be utilized efficiently only when the purposes and conditions of the assistance are determined in strict compliance with the concrete economic needs of the developing countries. And the economic needs should be understood in the widest sense of the word, including, e.g., also the additional demands arising after the introduction of new funds into the economic circulation and the corresponding changes of the latter.

Ad 2. Obviously the bilateral aids are useful for the developing countries, when applied with circumspection and foresight, and also the countries granting them have certain commercial interests associated with the aids and credits. Hence the elimination of the system of bilateral aids, if at all conceivable, would essentially diminish the amount of growth energies going to the developing countries. Therefore it is expedient to maintain the system of bilateral aids, also from the point of view of the developing countries, not to mention the interest of the granting states, especially the great power.

But the bilateral aids are earmarked in the sense that the granting countries tie their utilization to the purchasing of their own articles (capital goods), that is, they are inconvertible. Aids of this type constitute at present the major part of the growth energies flowing to the developing countries including not only the aids granted by the socialist countries but also most of those given by the United States, Great Britain, France and the German Federal Republic.<sup>6</sup>

The system of bilateral aids involves several difficulties:

- a) the nomenclature of capital goods offered by the granting party does not coincide with the most urgent needs of the developing countries and with the priorities determined in their long-range economic plans;

<sup>6</sup> J.M.D. Little, *op. cit.* (p. 227).

b) it is, in turn, possible that some developing country could excellently utilize exactly the kinds of capital goods that are offered to another for which they are not so important, but political or other considerations of the granting country require that the aid be given to the former and not to the latter;

c) the earmarked character of the aids given within the bilateral system contributes to the rigidity of the foreign-trade structure, hindering its becoming more favourable for the developing country and impairing economic growth itself;

d) the limited budget of the developing country does not permit fully to mobilize all domestic resources that could be utilized for the purposes of the foreign-sponsored project; instead, it must increase imports (especially of labour-saving goods).

These difficulties raise the necessity of rendering bilateral aids convertible. This would require a clearing centre under the auspices of a competent agency of the United Nations Organization. The clearing centre would not, for the time being, have to make efforts to embrace and co-ordinate the entire spectre of bilateral aids. It should enter on the scene only upon the request of one or both of the parties. In such a case, it would study how the aid offered by the granting party could be converted in order to make it more favourable for the receiving country without impairing the justifiable interests of the granting country.

The activities of this clearing centre would be more efficient if it were regularly informed of all projected and actually granted bilateral aids. Such information should be gathered by the continental economic commissions of the UNO; and perhaps also the co-ordination within the same continent could be made the task of the continental economic commissions. In any case, it is important that co-ordination should not become an administrative and bureaucratic routine but be based on economic and commercial considerations.

Ad 3. In connection with every kind of technical or scientific assistance it should be realized that the needs of most developing countries for scientific research and experimental work are in many respects similar. For instance, countries situated in the same region can make use of the same results of agricultural research and experimentation regarding irrigation, soil studies, breeding of plants and animals most suited to the given environment, meteorologic studies and so on. The same applies to the geological investigations, the exploration of minerals, or to the adaptation of certain industries and equipments to tropical conditions. Theoretically it is possible that one of these scientific problems with which many other countries are also concerned is solved within the framework of technical assistance given to one country. The task would be then to ensure that the results thus obtained should reach and benefit all countries living under similar natural conditions. In reality, it often happens that the scientists of one granting country continue to be engaged, in some developing country, in researches for the solution of a problem that has been already solved elsewhere.

The international organizations should provide for the publication of detailed documentation of results achieved and methods used in the approach to the vital development problems.

As mentioned at the beginning of this chapter and confirmed by comments on the international system of aids, foreign trade is the most sensitive factor in the economic growth of the developing countries. Accordingly, when shaping the long-range economic conception of any developing country the aspects of foreign trade must be weighed with particular care. This requirement must be stressed because the economic planners of the developing countries are inclined to disregard it. Their main concern is to plan the processes within the national economy and to direct them into determined channels by introducing new measures and resources. This endeavour is quite reasonable since world economy consists of national economies, and these constitute at present—and will do so for long decades—the foundation of the world's economic growth. However, world economy is not simply the aggregate of the national economies, reflecting passively the processes of the latter. It is the forum where the processes taking place on the national level are being brought to a common denominator through the international exchange of goods and services, and exerting a strong feedback upon these processes and the decisions made in the national economies.

### National Economy as the Only Possible Frame for Actions

It is true that even the thinking and acting in terms of an integrated national economy are to be learned by the leaders of many developing countries, since the integration into a national economy is not yet complete; national independence was fought out before a national economy proper existed. It is also true that the economic structure of the developing countries cannot be built up in strict compliance with the "comparative advantages" because this, as has been pointed out before, would lead to an oversupply of tropical products.

Thus, the national economy is a real and necessary frame of economic thinking and actions, yet even in this narrower frame it is not possible correctly to anticipate future events without taking account of the contacts between national economy and world market. When drawing up a national development plan, we must presume the existence of certain trends in the development of the contacts with world economy. On the basis of these assumptions export revenues and import needs must be calculated with their impacts on the balance of payments and on the domestic currency. All this must be incorporated in the national economic plan, i.e. this must allocate the material means produced as a result of international economic relations and build up a whole system of economic measures aimed at their best utilization.

Yet in the years following the drafting of the national economic plan, certain processes differing from the expectations and preliminary concepts will appear in both the national and the world economy. Obviously, the calculations and expectations concerning the probable trends on the world market do not appear directly in the national economic plan. This, however, comprises the amount of commodities to be exported, of foreign currency to be earned thereby, the amount



of imports and their costs in foreign currencies and, by implication, also assumptions regarding the development of the terms of trade. Hence the equilibrium of the growth process figuring in the national economic plan is subject not only to the unexpected changes in the internal processes but also to changes in the world economy producing trends other than assumed in the national economic plan.

The concrete trends of foreign trade and the resulting balance of the incomes and expenses in foreign currency have a sharp impact

- on the amount and on the distribution by sources of the budget incomes,
- on the amount of investment,
- on the decisions regarding the changes of production pattern,
- on the extent and quality of impulses and effects coming from the world

economy.

It follows that the rate and the equilibrium of economic growth depend, to a large extent, in some cases decisively, on the trends of foreign trade. In an export-oriented and import-sensitive economy these influences largely determine the growth and equilibrium conditions of any given year. (In most developing countries where agricultural harvest and the exports based thereon are decisive for the budget income and for exports, "harvest" or "budget" years are counted instead of calendar years.)

### World Market as a Variable Independent of the Developing Countries

It is therefore important to elaborate the economic conception and the national economic plan with due regard to the anticipated foreign-trade relations. While many processes of the domestic economy can be started and influenced "from above", that is, by the government, the economic environment of foreign trade cannot be influenced by the government of the developing country. Government measures of these countries can serve only the *adaptation* of the national economy to the conditions existing on the world market. The phenomena of the latter, their direction, extent and time of appearance must be inserted as they are into the economic policy of the individual countries. This, however, means not only an adaptation to the trends of world market, but also their clever utilization for the purposes of national economic growth. The decisions of the developing countries regarding foreign trade should be of such a character, or else they will be arbitrary and will impede and impair economic growth and balance conditions.

On the other hand, in possession of a greater economic power, it is possible for a government to influence the form, the extent and the time of appearance of certain economic phenomena. This can only be achieved by being able to control—within certain limits—most or at least some major factors influencing the phenomenon. In a centrally directed economy, for instance, the increase of the purchasing power can be regulated with a reasonable amount of safety. Thus, the demand of consumer and capital goods can be influenced. Naturally, in order to perform

actions of economic policy it is not sufficient to dispose of economic power but all interdependent economic processes associated with the planned change of the various factors must be correctly assessed.

Economic actions of a complying character organically involve a scientific analysis and foresight of the expected trends in the given phenomenon as well as rapid reaction and elasticity.

The economic leaders should therefore endeavour

- to collect the necessary amount of reliable information,
- to take account of the deviations of the actual economic processes from those figuring in their plans,
- correctly to anticipate the forthcoming trends of the phenomena in question,
- to induce the national economy to react quickly and elastically to unforeseen changes.

The economic leaders must permanently have an eye on the processes and changes taking place in world economy, on the one hand, and, on the other, modify their plans regarding national development if and when circumstances so require.

It is not desirable for the developing countries to adopt the rigid system of national economic plans and of "plan fetishism" which did much harm to the socialist countries in the 1950's. Economic growth constitutes the first postulate; the plan is but a tool of co-ordinating its processes. As soon as the national economic plan no longer serves the optimum growth either because of erroneous initial assumptions or because of unforeseen developments in world economy, the plan must be modified.

In Part Three, we shall come back to the problems of modifying a national economy. At this juncture we have only wanted to refer to the important problems the changes in the world economy may constitute for the developing countries, and to the ability of adaptation necessary for them to make the best of these changes.

## CHAPTER 9

### Agricultural Policy and Economic Growth

Agriculture has a decisive share in creating the conditions of economic growth. Within two to three decades, however, industry will obviously acquire the leading role in the developing countries, too, for the following two reasons:

- a) its contribution to the national income will be manifold that of agriculture,
- b) in an up-to-date economy it is for industry and scientific research closely linked with it to revolutionize agriculture, as well as the whole of economic and social life.

Still, the social and economic processes connected with the transformation of the economic pattern cannot be characterized solely from the side of industry. Owing to the rapid population growth, agriculture, too, must treble or quadruple its production in the two to three decades to come, although it must cede most of its young and enterprising manpower to industry and be content with a very small share of total investment for the purpose of extending cultivated areas or raising production (by increasing hectare yields or extending cultivated areas). What is more, a substantial part of the agriculture's net income must be withheld for increasing accumulation. And in most developing countries the rise of agricultural production is hampered by outdated ownership relations (from tribal land property to the feudal latifundia cultivated by share-tenants), in some cases also by mystical beliefs (e.g. refusal of using steel plough as a "tool torturing earth"), by fatalistic views on the outcome of harvest, by distrust of new methods or of those recommending them, etc.

The intricacy of agricultural policy accounts for the well known fact known from economic history that in the course of the growth process—with a few exceptions—the development of agriculture has fallen far behind that of industry, causing serious troubles in the equilibrium and slowing down development. This lag requires the increase of agricultural imports (or a radical cut of exports if they consist of commodities in demand also on the domestic market), which results in a shortage of foreign currency necessary for the import of capital goods. Also, the purchasing power of the agricultural population rises slowly and is unable to buy the industrial goods the marketing of which would be necessary for industrial accumulation and development. Thus the lag of agricultural production jeopardizes the whole economic growth and may result in stagnation and growth crisis.

## The Economic Importance of the Quick Growth of Agricultural Production

The growth of agricultural production is, then, of a paramount and sometimes decisive importance—for the following reasons:

a) The greatest burdens of internal accumulation are carried by the agricultural population. This is obvious since the overwhelming majority of the population is engaged in agriculture (70 to 80 per cent in general as against the 10 to 25 per cent in the advanced countries). A large part (though varying according to countries) of the state incomes derives from export taxes, and the majority of exports consists of agricultural commodities in most developing countries. The export taxes can hardly be passed on to the foreign buyer, whence the actual producer price is lower than the world market value of these commodities. Part of the duties are also paid by the agricultural population as consumers, and the costs of establishing domestic industry are again covered by the population of the country, including the agricultural population, in the form of high consumer prices.

On the other hand, the economic processes started by industrialization, though acting in favour of a rise in the living standards, cannot entirely counterbalance (especially at the beginning) the effects enumerated above. The purchasing power of the urban population rises and this results in an upward trend in the demand and prices of agricultural products. On the other hand, the number of persons engaged in agricultural activities decreases (since industry absorbs more manpower from agriculture than by what this is supplied by the population increase) and, in the case of unchanging or rising production, the per capita income of the agricultural population will rise. This process, however, can only be regarded as favourable as long as the secession of manpower from agriculture does not impair the composition of the remaining manpower (from the point of view of enterprising spirit and working capacity) to an extent that leads sooner or later to a fall in production.

It is, however, obvious that these two positive tendencies cannot counteract the burdens put on the shoulders of the peasantry, necessarily and inevitably, by economic growth.

b) Agriculture plays an extremely important role in securing economic equilibrium. It is clear that in most developing countries the foreign currency necessary for the import of capital goods—assuming a stable balance of payments—is earned by agriculture. Without this there is no economic growth and development. If the balance of imports and exports of agricultural products becomes negative, the economic circulation takes a longer time to be accomplished, since the means of production that would introduce higher technology cannot be imported.

c) In the first phase on industrialization agriculture has a lion's share in securing both the material means and the domestic market. Superficial observers often equate two very different problems: that of the distribution of the burden of accumulation among the various branches and population layers, and that of the allocation of the accumulated means. A significant part of the means are allocated to industriali-

zation, yet they must be accumulated to the expense of agriculture. This accumulation policy cannot be pursued unless, or can be pursued only to an extent within which, the new industrial plants operate at considerable profits. In order to achieve a contemporary industrial structure and a correct economic circulation leading towards internal integration of the economy, attention should be focused first and foremost on the needs of the internal market. The industries producing consumer goods will obviously have the priority against those producing investment goods as long as a domestic demand for home-produced investment goods is created, one that can be met in an economically efficient way.

d) It is, moreover, the task of agriculture to secure the increasing amount of foodstuffs required by the rapid growth of the population, and within it the rising share of urban and industrial population requiring higher standards of alimentation.

Reckoning with an annual increase of 2 to 3 per cent of the population, calculating the increased consumption due to the growth of the urban and industrial population and the inevitable rise of the low standards in general (but especially with respect to children) and finally considering the rising export requirements, agricultural production ought to rise by an annual 5 to 6 per cent, i.e. almost three times as fast as in the advanced countries. (In Europe, for instance, prior to World War I, food production rose by an annual 2 per cent. True enough, the growth rate of the population was only 0.7 per cent.) Our computations based exclusively on the requirements and needs of the internal economy are confirmed by the calculations of FAO on the international level. According to these, the actual agricultural production of the world will have to be trebled by the year 2000 so that the major part of growth must materialize in the developing countries. It should be noted that, compared with the years 1957-59, in 2000 the population index of the countries with a high level of alimentation will be 158 while that of the countries with a low level will be 258.

e) In the second half of the 20th century it is no longer sufficient to examine the significance of agriculture for the internal economy alone. We must be aware of the fundamental discrepancy between the food production and the territorial distribution of the population. This discrepancy culminates in the Far East where 53 per cent of the world's population provides 28 per cent of the world's agricultural production.<sup>1</sup>

According to reliable calculations,<sup>2</sup> the number of agricultural workers (earners) is 700 million in the developing countries and 100 in the advanced world. The 700 million produce the same amount of cereals (in a different composition) as do the 100 million: about 440 million tons. On the other hand, the 100 million agricultural workers of the advanced countries turn out five times more animal products than do the 700 million working in the developing countries.

<sup>1</sup> According to a FAO estimate.

<sup>2</sup> Gy. Enyedi: A világ mezőgazdaságának földrajzi típusai (The Geographical Types of World Agriculture). *Földrajzi közlemények*, No. 3. Budapest 1965.

Two-thirds of mankind and three quarters of the world's peasantry live today in the tropical or subtropical zones. In the opinion of many experts, the maintenance capacity of tropical and subtropical farming without irrigation is relatively small (10 persons per square kilometre) and the cultivation of the land must be followed by long fallow periods. (In the equatorial zone, for instance, a few years cultivation is followed by several decades of rest under wood or just fallow.) Irrigation farming, on the other hand, maintains a greater population density (200 persons per square kilometre) but even here the standards of nourishment are low, while labour intensity is high, and production can no longer be raised by the methods used so far. If the growth of production cannot be accelerated in the forthcoming decades, by the end of our century in some countries of the Far East the amount of calories per capita will drop from the present 2,200 to 1,600.

Owing to the uneven distribution of agricultural production it would be inconceivable for the developing countries in the coming decades to concentrate exclusively or chiefly on the utilization of their comparative natural-climatic advantages. This would, as we have pointed out in Chapter 8 on foreign trade, create an absurd world-economic situation because the foreign-currency incomes from the foodstuffs with inelastic demand that can be sold to the slowly growing population of the advanced countries cannot cover the expenses deriving from the import of foodstuffs with a still elastic demand by the rapidly growing population of the developing countries. (As a consequence of the low standard of living in the developing countries the demand for staple foodstuffs will for a long time remain elastic, i.e. their elasticity coefficient will be above one.) Not to speak of the fact that a negative foreign-trade balance of agricultural products would paralyse the import of advanced capital goods so necessary for the raising of the technological standard.

It follows from all this that the rapid growth of agricultural production is a postulate not only for the internal economy but also for world economy.

### In What Action System Can Agricultural Production Be Raised Rapidly?

But now the question arises in what form and manner, i.e. in what system of rational human actions, this postulate can be put into practice.

It is rather difficult to answer this question since farming in the various developing countries is pursued under very different natural, historical conditions and ownership relations. Depending on the joint effect of these and other factors, the development of agriculture has different social, political, economic and technological variants.

As far as the social and political aspects are concerned, it is obvious, for instance, that the feudal latifundia extending over the North-African plains or the big estates in the Middle East constitute a serious obstacle to enhancing agricultural production. These large estates do not represent large-scale farming but the exploi-

tation of share-tenants. Thus, from the social and political aspect, a rise in production may be attempted only after a radical land reform and the creation of small estates or permitting the establishment of land-renting co-operatives capable of gradually transforming—with the support of the government and the mass organizations at the beginning—the rent conditions, of improving farming and, in conclusion, of becoming the collective owners of the land (in the form of production co-operatives). It is another, rather political question whether a land reform should be combined with the indemnification of land-owners and ensure attractive possibilities for them in the field of industrial investments.

From a strict economic aspect, production can be increased, for instance, by extending the cultivated areas (extensive method) or by increasing the yields from the unit area (intensive method). The former method can only be used if the country is not densely populated. Otherwise lands of very bad quality would also have to be brought under cultivation which may require at least as much investment (capital) as the increase of the yield on the cultivated area.

From the technological angle, the intensive type of development may consist either of increasing the amount of live labour input per unit area or of raising the productivity of the same amount of labour input. As it is known, in the USA 8 million agricultural earners (one per cent of the world's total) yield one-third of the world's wheat production, two-thirds of its maize production and half of the world's cotton production, and 25 hectares of cultivated land are worked by one agricultural earner.<sup>3</sup>

When elaborating different variants, the natural conditions of agriculture should be widely considered; such as the climatic and soil conditions as well as the amount of the available water reserves.

The development of agricultural production is, naturally, influenced by many factors; mobile and immobile ones, i.e. such as can be modified more easily or with more difficulty, as well as by short- and long-term ones having a rapid or a slow effect.

The acceleration of agricultural growth must be based on the best co-ordination of these factors.

### Factors Influencing the Growth of Agricultural Production

Of the factors influencing growth we wish to mention the following:

a) The initial level of agriculture, including the ownership relations, the inherited modes of land utilization and the economic characteristics of agricultural production. The experts of economic geography refer to this notion as the "geographical type" of agriculture.<sup>4</sup>

<sup>3</sup> For figures concerning the agriculture of the USA, see Gy. Enyedi, *op. cit.* (p. 239).

<sup>4</sup> See Gy. Enyedi, *op. cit.* quoting J. Kostrowicki's definition outlining the agricultural type as follows: "the ensemble of the characteristic paths, tendencies and results of farming, developed in a given natural geographical environment in the course of historical processes, embedded in definite social and land-ownership relations."

b) The land, abundant or scarce, related to the population from the angle of the long-term conception of economic policy.

c) Fixed and working capital invested or liable to be invested in the near future into agriculture with a view to increasing production.

d) Agricultural manpower (scientific research workers, experts, organizers, producers possessing the necessary production experience, and the unskilled manpower) which is amply available as far as quantity is concerned, but from the angle of qualification it is a scarce factor.

e) Economic and organizational units, taken in the micro-economic sense (co-operatives, family farms, plantations, etc.) within which the producer or producers endeavour to achieve targets serving their own economic interests and satisfying social needs.

f) The economic environment of agriculture, i.e. the impulses, coercions, stimulations and supports as a coherent system that can be expected from the national economy or from some of its branches.

Let us examine these factors in the order of their succession.

### Geographic Types of Agriculture

A geographic type of agriculture, as has been said before, is an extremely complex notion. Its interpretation by the economic geographer is naturally different from the approach of the economist, but it is easy to find the connecting link between the two types of approach. The economic geographers try to find the geographic system underlying the complex factors of the world's agriculture. In this respect the Enyedi system so often quoted by them should be regarded as a great step forward since its classification relies not on one single principle but on the interdependence of the geographical, historical, social and ownership conditions. But the economist's approach is a dynamic one, for him the historical, social and ownership relations having led to the present situation constitute only one element of rational human action. The economist's aim is to achieve a rapid rise in production, and this is feasible in most of the agricultural types. Exceptions are the feudal conditions combined with the system of share tenancy, found chiefly in North Africa, the Middle East and the Far East.

No doubt, however, that a clear summing up of the criteria and characteristics of the geographical type is a great help in determining the purposes of rational human action and in choosing its instruments.

All basic types of agricultural production can be encountered in the developing countries; the variants of traditional agriculture, capitalist plantation farming and the Asiatic socialist type, the greatest part being played, naturally, by the traditional type.

The traditional agriculture is based on subsistence farming, yet the combination of plant growing and stock breeding is rarely proportionate.

Enyedi classifies the types of the traditional agriculture as follows:



1. *Nomadic animal husbandry* has developed largely in such territories where, owing to meteorologic conditions, crop growing is not or is hardly possible. The most characteristic feature of this type is that the whole population migrates together with the herds, since the pastures become rapidly exhausted and regenerate slowly.

a) *Polar nomadism* has developed along the Eurasiatic coastline of the Arctic Ocean. Today most of the peoples living in these regions (e.g. the Lapps or Saams) have settled down and use more up-to-date forms of animal husbandry.

b) The *nomadism of the arid zones* is widespread in Northern Africa, in Western Asia and in the Mongolian People's Republic. The flora of the steppe and deserts is sparse but by constant migration a considerable stock can be bred.

Most of the pastoral tribes keep various animals, at least one breed as beast of burden (usually the camel) and one for food and skin (usually sheep). In the past decades the Mongolian People's Republic has adopted also farming, although the rural settlements still migrate from place to place. The pastoral tribes in North Africa, West Africa and in the stock-breeding zone of the African savannah maintain a lively intercourse with the farming tribes and, owing to their more martial spirit, often subjugate them. These conflicts still result in tribal skirmishes.

Myths praising nomadic stock breeding as the noblest way of life still subsist in beliefs and traditions hampering the development of the atmosphere of economic growth. The efforts of these tribes or groups are aimed not at creating a better future but at maintaining the ancient tradition unchanged. The pastoral people consider the livestock as their greatest asset, write poetry and sing songs about their animals and are reluctant to part with them.

2. *Crop-growing types*. These can be found exclusively in the tropical and subtropical zones. According to the mode of farming, dry and irrigation farming can be distinguished, as well as their combination.

a) *The non-irrigated cultivation in the tropical zone*, owing to the primitive technology applied, can utilize only a small part of the otherwise cultivable land and therefore can maintain only a low population density (10 person per sq. km). The system is based on a long crop rotation because a few years of cultivation is followed by several decades of fallow land or woodland. Farming requires new areas from time to time and therefore the rural population must look for new places of settlement.

In the equatorial forests land for cultivation is acquired by burning part of the forests. The crops are planted mixed (there are no plots), the chief products being maize, millet and various tropical tuber crops (yam, batata, manioca, etc.). The weak soils soon get exhausted and manure is almost unknown. Such forms of farming are usual in the Congo Basin, in some parts of Indonesia in the jungles of South-East India and in the region of the Amazonas.

In the savannah zone the farming conditions are better, the soil regenerates more rapidly (2 to 3 years of cultivation is followed by 3 to 5 years of fallow land) and migration is less frequent. The wooded savannah is used for farming, the steppes, for stock breeding. The private ownership of land, owing to the vast uncultivated areas, has not yet developed. Since crop growing is independent of stock

breeding, soil conservation does not exist. The growing of root crops is labour-intensive, requiring 60 to 80 man-days per hectare. The yields are low.

Sudan (in the geographical sense of the term) is the home of savannah farming, but similar forms of cultivation can be encountered in Central America (in some Indian tribal communities) and on Madagascar (Malgash).

This type of farming represents a considerable reserve for world agriculture. Yet the exploitation of the possibilities requires radical changes in the forms of cultivation and economic conditions of these territories.

b) *The traditional Mediterranean dry farming* has found the widest application in the littoral regions of North Africa and the Middle East. Its forms have evolved under the combined impact of dry summers and religious precepts. In this geographical type stock breeding is connected with farming. In some places, for instance in the Moroccan mountains, the animals are stabled in the winter, and this permits the utilization of manure. The chief crops in certain districts are fruit and oleiferous plants (e.g. in Kabilia), in other districts plant growing dominates. As to stock breeding, sheep represent the prevailing breed.

In the Middle East the main products are the drought-resistant cereals grown with fallowing and mostly without manuring. Fruit and oil-seed growing on the slopes descending toward the Mediterranean is much more profitable.

Owing to the rapid growth of the population, there is an oversupply of labour and a strong emigration. For lack of fodder, stock breeding is sparse; animals for draught and burden are obtained from the nomadic tribes of the neighbouring regions.

The cultivated area in this zone can substantially be increased by irrigation and advanced technology.

c) *The traditional irrigation farming* has a great significance for economic history and world economy. It has various types, such as, for instance, the combination of dry and irrigation farming for the increase of yields, the exclusively irrigation farming for regenerating barren soil (Egypt) or the replacement of dry farming by irrigation farming (on the plains of the Far East).

Irrigation farming is practised on the coast of the Mediterranean Sea, in Egypt as well as in West Asia. It requires a high degree of production discipline (water storage, intake works, etc.) which gives rise to disciplined rural communities. One-year vegetables and wooded plantations can also be found in these areas. Wheat is also grown (without irrigation), but mainly for subsistence purposes, being less profitable.

On account of land shortage, the settlements are built on barren areas. Irrigation farming requires much labour and its maintenance capacity is also much higher than that of dry farming (200 persons per sq. km).

Irrigation farming relies on the water supply from large rivers without which, considering the soil and climatic conditions, production would become practically impossible. Originally also agriculture was seasonal but by building reservoirs, beginning from the turn of the century, the water supply has become more evenly distributed and in many cases two or three crops are grown annually.

The United Arab Republic was the first in Africa to carry out a land reform (in 1952). The reform was then substantially extended in 1957 and 1961. It has radically changed the land ownership relations in this country. Nevertheless, owing to the rapid population growth and the small extent of the cultivated area (only 3 per cent of the territory of the country), the problem of food supply and of land is still grave. The building of the high dam at Aswan will substantially increase the cultivated area but will not solve the essence of the agricultural and food problem.

The traditional irrigation farming has acquired the greatest importance in South and East Asia where it maintains vast masses (at a low level though) and yields an amount of products significant even for world economy.

The mode of soil utilization in this area essentially differs from the forms and methods applied in the Middle East. The yields are in general not higher than in the Middle East but the utilization of the soil covers every possible area; there is no fallow land, and crops are harvested several times a year. The form of cultivation is extremely labour-intensive: sometimes as many as 400 man-days are devoted to the annual cultivation of one hectare. Production relies mainly on the plains whereas the areas lying higher are exploited without irrigation (chiefly perennial crops). Farming in the areas lying highest (including strip cultivation) is of secondary importance.

The most fortunate variant of this cultivation system is the permanent irrigation of the delta regions and the plains. In certain areas where the monsoon rains come twice a year (northeastern part of India, Ceylon) irrigation has no, or only a supplementary, significance. But in the interior of the mainland irrigation is indispensable even in the rainy season in order to prolong the vegetation period.

In the delta regions the water level in the rivers is often higher than the surrounding terrain and therefore canals can be dispensed with. On the other hand, floods and high ground water raise serious problems.

In regions other than those surrounding the deltas it is usually necessary to build a system of canals. A water coverage of ten centimetres requires 11 to 13 man-days per one hectare.

On higher levels the supply of irrigation water is more complicated, either local water resources are used or the water of the rivers is raised from the plain to higher altitudes. In some areas (the state of Madras) water reservoirs are used for irrigation.

When the possibilities of acquiring water are restricted, irrigation and dry farming should be applied alternately. In some states of India, for instance, the areas cultivated in the rainy season are left fallow in the dry season, i.e. production is interrupted. This, naturally, reduces the maintenance capacity of agriculture. By the end of the second five-year plan, only 24 per cent of India's total sown area (133 million hectares) was irrigated, that is, 32 million hectares, but this part maintains the majority of the population.<sup>5</sup> In areas under permanent irrigation

<sup>5</sup> S.R. Sen, *op. cit.* (p. 76).

the crop is usually rice whereas in areas under combined dry and irrigation farming the crops are varied.

Permanent irrigation is characteristic mainly of South-East Asia. Dry and irrigation farming alternates in India and Pakistan for technological reasons. By building proper water reservoirs the irrigated territory in India can be substantially enlarged (the potentially irrigable area is estimated at about 76 million hectares).<sup>6</sup>

Yet traditional irrigation farming, in spite of the tremendous human labour invested, is not capable of sustaining the fast growing population. In the Far East, as has been pointed out earlier,<sup>7</sup> the daily per capita food consumption as measured in calories fell to 2,070 from the level of 2,120 prior to World War II; protein consumption, from 63 grams to 56 grams per day in the early sixties. According to the reports of international organizations, 300 to 500 million people in this region are definitely indisputably undernourished and another 500 million are not supplied with sufficient food (meat, fruit, vegetables, etc.).

In most countries considerable political and social efforts (land reforms) as well as economic and technological ones are made to raise production but the conditions for adopting a new type of agriculture, owing to the underdeveloped state of industry, are not ensured.

When describing the types of the traditional agriculture we must remember that all classifications and groupings are perfunctory in a certain sense, although they cannot be dispensed with.

The classification here described is somewhat more perfunctory than the others since what it examines is not the purely "traditional" forms of farming but the remains of a disintegrated mode of production and of a social structure that are still extant in agriculture. The modes of production are affected to various degrees by the modern sectors, i.e. by the impulses coming from world economy. This influence, naturally, is not equivalent to adoption in every case, i.e. to reasonable compliance with foreign impulses, but often elicits a refusal of the modern impulses and a definite endeavour to preserve the old form of life. This endeavour may become so strong that it might endanger the life and survival of the various communities.

Moreover, even within the same geographic zone the modes of production may essentially differ on account of the historical events preceding it and owing to the different intensity of the external impulses. As an example let me quote the differences between the forms of farming in Uganda: the feudal forms of family tribal ownership, the family-owned parcels in the Luo tribe and the Kikuyu farms which developed as a dependence of the European plantations.

<sup>6</sup> S.R. Sen, *op. cit.* (p. 76).

<sup>7</sup> S. Mudd, *op. cit.* (p. 216).

## Types of Capitalist Farming in Developing Countries

Two types of capitalist agriculture can be observed in the developing countries: the modern pasturing stock breeding and plantation farming.

The preconditions of the development of *pasturing stock breeding* are vast territories and low population density. The rational aspect of their existence derives from the fact that the low precipitation makes plant growing rather risky.

The majority of the livestock is in the hands of capitalists (entrepreneurs) who use the most up-to-date means for improving pastures, for selecting the most appropriate stock, for processing, storing and transportation of products. Production is aimed, in the first place, at turning out masses of meat, wool and raw hides, chiefly for purposes of export.

This type of stock breeding has struck root mainly on the pampas of South America. In Argentina production is focussed on beef and raw hides. The huge farms on the pampas, the *estancias*, regularly sow the pastures with grass seeds, improve the stock with imported animals, dispose of their own slaughter houses, refrigerating plants and transport equipment. Along the edges of the pampas sheep breeding is flourishing.

*Plantation farming*, this specific form of overseas capitalist farming, has formed enclaves within the established pattern of traditional farming. By exploiting the comparative climatic advantages, it turns out mostly tropical commodities for foreign markets. Production is organized through a peculiar combination of age-old and modern methods because the abundance of cheap labour makes it in many respects possible to dispense with mechanization.

Plantation farming has assumed three principal forms:

a) a specialized production evolved from traditional agriculture without having changed its fundamental character, foreign capital being employed mainly in purchasing the product from the peasants, in its grading, simple processing packaging and exports (tea production in Ceylon, cocoa production in Ghana, etc.);

b) a large-scale production introduced by the colonizing or the neocolonial capital; here, the foreign capitalists have a hold on both production and trade (e.g. the banana plantations in Central America, the caoutchouc plantations in Malaya, etc.);

c) plantations established by the domestic capital (coffee production in Brazil).

In this third case specialization could not be carried through consistently, because, on account of the underdeveloped state of the domestic agricultural production and trade, also traditional crops had to be produced to supply the workers on the plantations. Later, owing to difficulties in marketing coffee, the capital recoiled from the risks, part of the plantations were rented, and the leading role in the creation of new plantations was assumed by the small farmers.

The agriculture of the socialist countries of Asia, exploiting the new possibilities created by socialist ownership relations, try to transform gradually the traditional Asiatic farming. This is a slow process, for well-known reasons, since Mongolia

is still characterized by nomadic shepherding and China, North Vietnam and North Korea, by conditions of traditional—partly irrigated—farming.

By describing the geographical types of farming we wanted to show the vast differences existing between them. The general differences between two economies as to their levels and patterns are known to be multiplied in agriculture by the impact of natural and historical factors. These differences appear and deepen not only between the agriculture of the advanced and that of the developing countries but also between certain developing countries, and even, between various regions within one country.

### The Simultaneous Presence of Various Agricultural Types in Developing Economies

In the developing countries various types of farming and cultivation coexist: they evolved in different historical periods and subsist under different ownership relations. The relationship between these types differs from the pattern that can be observed in the agriculture of the advanced capitalist countries or of the socialist countries of Europe.

The point is that, in the developing countries, the various types of farming are relatively independent of one another and also of the other parts of the economy. This is due, in the first place, to the relatively underdeveloped state of the economic environment of agriculture, since the elements of the modern mode of production have penetrated the economy from the outside and partly as a colonial import. Integration, in the true sense of the word, i.e. the division of labour among the different areas and economic branches, has not been achieved. In the advanced capitalist and later in the socialist economies a predominant role was assumed by the agricultural types capable of meeting the social and economic requirements of development from the angle of the given system. The market which had expanded in the course of development exerted a strong impact on agricultural production, and the increasing supply from industry and services greatly influenced consumption. Finally, the rapidly advancing industry and the national economy found themselves compelled to promote and encourage agricultural production which itself had become organized industrially, owing to the high degree of mechanization, chemization and to the wide application of the new biological principles.

In the developing countries there has been no industrial revolution, and agriculture has just begun to integrate. Hence the principles governing the creation and development of traditional agriculture derive, in the first place, from the natural-geographical environment. People living in a given environment tend to act under its influence, that is, either directly impressed by the environment or under the impact of the traditions thus formed. Their actions are rarely connected directly with the mode of farming of other human groups (tribes or large families) living in a different natural-geographical environment.

The acceleration of economic growth and the development of a homogeneous national economy put the traditional agriculture in a new situation. New principles of organization penetrate agriculture and heavily affect the economic actions and reactions of people employed in agriculture. These effects do not act against the natural-geographical conditions and relations (since these can be but slowly modified or improved, with great inputs of material resources, of organization and scientific concentration) but they create contacts and interdependences with the rest of the national economy. Even under unchanged natural-geographical conditions the actions will be carried on in a new way if the growing market and the expanding economy exert a new influence. In the initial phase of development this applies exclusively to the concrete human actions and not to the conceptions inherited from the old situation. Further progress depends on the success or failure of the actions carried out under the impact of the new impulses.

The traditional agricultural types could only survive for such a long period because until the last decades they were able to supply—if only on a low level—with victuals the workers engaged in them, that is, the majority of the nation, and more or less also the rest of the population. This situation has now radically changed owing to the rapid population increase. By the end of this century there will be no place in the world where nomadic pastoral tribes could wander over vast territories or where certain types of agriculture supporting only ten person per square kilometre will be tolerated. It is also questionable whether there will be sufficient space on the pampas for modern capitalistic grazing stock breeding. We have already mentioned that even the relatively advanced form of traditional farming connected with irrigation will be unable to develop production at the pace the population grows.

Thus the gradual replacement of traditional farming with more up-to-date forms of cultivation has in our days become an economic postulate on which depend economic growth and the supply of the rapidly increasing population. In our interdependent world these problems concern not only the developing countries but mankind as a whole. It is obvious that the success or failure of the economic growth of the developing countries will have a decisive impact on the political history of the coming decades and on the first half of the 21st century. It will also affect world economy as well as the factors shaping the new principles of the international division of labour.

### Plant Cultivation and Stock Breeding Locally and Functionally Separated

From the natural, social and technological differences between the agricultural types it logically follows that the long-term conception of agricultural development and the system of the short-term measures to be taken vary essentially with every region, country and even within one country. It is clear, for instance, that the efforts to boost agriculture limited to nomadic shepherding substantially differ

from those made to increase the efficiency of tropical dry farming. It is a particularly serious problem that, in most agricultural types characterizing the developing countries, plant growing and stock breeding are geographically and functionally separated. This is due, in the first place, to natural factors to which agriculture must by necessity adapt itself. In an up-to-date, technologically well equipped and scientifically well founded agriculture, however, these factors can be influenced and modified (gradually and within certain limits). Hence, efforts should be made to establish such a division of labour between plant growing and stock breeding as would embrace several countries and agricultural types. Unlike in Europe where agriculture has developed in the spirit of autarchy (that is, concerning the agricultural products of the temperate zone), it is imperative to attempt from the very outset a close, international division of labour in agriculture on the continents or in the regions where stock breeding is separated from plant growing.

As far as the traditional nomadic shepherding is concerned, the first task is to make it operate more economically and to modernize it. It seems improbable that this type of stock breeding can be combined with plant growing, since the climate is not suited for the growing of fodder crops. In addition, there is a lack of animals capable of yielding a substantial amount of marketable products within a short time and with relatively small investment (as, for instance, pig breeding does in the temperate zones).

As regards the tropical irrigation cultures, they necessarily coincide with dense populations and, for this very reason, cannot yield sufficient quantities of animal fodder. (In India, where a huge but almost unproductive cattle stock exists, "sacred cows" hog the population's share of the food.) In such regions, the yields must be substantially increased by modernizing the existing modes of cultivation before developing stock breeding.

The study of the agricultural types then proves that the rational human actions must be built on different social, historical and natural circumstances and therefore the problems of bolstering production should be solved with due regard to all the characteristics of every type, region and country.

### Population Density, Cultivated Area, Manpower

Land is abundant or scarce depending on the population density. A high population density obviously has its advantages for industrial development, but from agriculture it requires either that the whole land, including the poorest soils, should be brought under cultivation or else that the better parts of land should be cultivated with high intensity. In both cases the increase of the yield will fall behind the investments of both capital and labour.

The quantity of production is governed by two main factors: the area cultivated and the manpower. It is equal, on the one hand, to the product of the area and the hectare yield or, on the other, to the product of the number of workers and of the productivity of labour (yield per worker). When combining this two "production



identities" we find that production equals the product of the number of workers, of the area per worker and of the yield per area unit.

From this combined identity it is always possible numerically to determine the contributions to a given increment of production stemming from the increase of manpower, from the extension of the cultivated area and from the growth in the average hectare yields. Also, an answer can be obtained to the question to what extent the needs of manpower have been covered by the increase in the number of workers and by the increase of the productivity of labour. It should, naturally, be kept in mind that in some developing countries the manpower supply of agriculture can only be measured by the total number of the agricultural population.

The area suitable for cultivation is a very elastic and varying notion since it depends not only on the quality of the soil, the configurations of the terrain and the climatic factors but also on circumstances connected with human civilization and technology.

The estimates concerning the areas suitable for cultivation vary within a wide range. Part of them are obviously on territories to which the surplus population of East Asia has no access. In Latin America and Africa there exist vast lands capable of absorbing the rapidly growing population. The tropical jungles and savannahs, the waterless deserts and the semi-arid mountainous regions are usually assigned to the potentially cultivable areas. The soil of the former is mostly of a poor quality and rapidly deteriorates once brought under cultivation, owing to erosion and eluviation. According to the report of an expedition of Hungarian soil zoologists to the Congo,<sup>8</sup> in the soils around the equator the precipitation invariably seeps downwards and the water-soluble compounds get leached down to depths of 20 metres. It is characteristic of these soils that the rich vegetation takes the nutrients not from the original components of the soil but from the organic remains of decaying plants which decompose above the soil. The decomposition begins at a higher level than in the temperate zone whence most of the fauna originally living in the soil can be found above the soil.

Though not unsurmountable, these difficulties require radical changes not only in the methods of agricultural cultivation but also in the economy of the countries in question.

According to certain estimates,<sup>9</sup> 20 per cent of the presently uncultivated red soils could be brought under cultivation in Africa and in Latin America. By doing so the food-producing areas of the world would increase by 360 million hectares.

Waterless deserts and the semi-arid mountainous regions constitute a large part of the territories not cultivated at present. Part of them could be cultivated by means of irrigation. This, however, depends on whether water is or can be made

<sup>8</sup> A. Zicsi: Beszámoló a kongói talajzoológiai expedíció gyűjtéséről (A Report on the Collection of the Congolese Soil-zoological Expedition). *Allattani Közlemények*, Vol. 52, pp. 147-53. 1965.

<sup>9</sup> R.M. Salter, *op. cit.* (p. 76).

available in the given region and also on whether there is sufficient capital and labour for constructing irrigation works. According to international experts, considering the present technological possibilities, some hundreds of million hectares could be claimed for cultivation by irrigation.

When claiming new territories for agricultural cultivation, various economic factors must be taken into consideration. But these factors are no longer restricted to the national economy, some of them belonging to the regional or continental and also to world economy.

As far as the national economy is concerned, the following factors should be considered:

a) Owing to the scarcity of the development energies, it is generally very difficult to combine the claiming of new territories with the raising of the yields on the cultivated ones, since both endeavours require the concentration of great material and intellectual energies. Hence, one of these alternatives has to be chosen, i.e. decision taken in the initial stage, and only after the consolidation of one trend can the efforts be directed to the other.

b) When hectare yields are low, it is probable that production can be boosted with smaller expenses on the areas already under cultivation than in newly claimed ones. It should be taken into consideration that, though extending irrigation is a costly undertaking, it can increase yields substantially and with a high degree of safety.

c) Also, the mobility of the agricultural manpower is rather limited. This can be offset by claiming the new land with the help of the old social formations (for instance, by settling a whole tribe or several tribes on new areas).

d) On account of the low level of technology, the extension of the areas brought under cultivation depends in the first place on natural conditions which, however, are not yet sufficiently analysed from the scientific angle. The natural preconditions of farming in the developing countries represent a much more intricate problem than is usually assumed. It is not yet clear, for instance, what production level can be attained on the semi-arid tropical areas. Nor is enough information available about the soils of the tropical and subtropical territories, especially about the ways in which the approximately equal length of the days and of the nights, the relatively long duration of insolation and—except for the deserts and steppes—the rich but unevenly distributed precipitation are acting on them. These features determine not only the meteorological but also the soil climate which affects the processes taking place in the soil and, in the last analysis, also the productivity and stability of the agricultural land.<sup>10</sup> It is, however, obvious that the thickly populated countries and more so the overpopulated ones will not be able to avoid the extension of the cultivation to new areas.

It must also be considered that in most tropical countries the cultivated area extends automatically. For instance, where shifting cultivation used to be tradi-

<sup>10</sup> We have pointed out this fact after describing the research of the Hungarian Zoologists' Expedition to the Congo. See A. Zicsi, *op. cit.* (p. 251).

tional, the fallow periods have become shorter, or permanent cropping has replaced the former land rotation, resulting in the increase of the area simultaneously cultivated but, at the same time, gravely endangering the natural regeneration of the soil. From the angle of the national economy it is also necessary to examine whether agriculture—without claiming new areas—is capable of supplying the rapidly growing population. If the answer is in the negative, then the extension of the cultivated areas cannot be avoided because in the long run this is a cheaper solution than the increase of agricultural imports.

In the forthcoming decades it will not be sufficient to investigate this question from the point of view of the national economy alone. It should be considered that, as a consequence of the separation of plant growing and stock breeding, the national economy in question will have to develop some kind of a division of labour with the other countries of the geographic region or of the continent. Most plant-growing countries are unable to rear animals in sufficient quantities, while the stock-breeding countries find it increasingly difficult to feed their stock, owing to the rapid growth of the human population. As a result of this, the surplus population of the latter gushes into the neighbouring plant-growing countries, either in the form of peaceful migration or through major or minor conflicts. But the plant-growing countries are hardly capable of supporting their own population, and therefore a regular immigration would only enhance difficulties.

Instead of this, it is desirable that, in the frame of interregional or international division of labour, the plant-growing regions or countries should supply the minimum amount of fodder to the stock-breeding ones, with the help of which the latter could somewhat modernize their stock breeding. It follows from the climatic endowments that stock breeding can more easily be coupled with processing industries than with plant growing.

One of the characteristics of the economic development of the tropical and subtropical zones seems to be that a certain international division of labour will be sooner established in agriculture, where it is enforced by the natural-geographical conditions, than in industry which is still underdeveloped.

From the point of view of world economy as a whole it is to be considered that the developing countries would need for long decades an exchange of commodities that would grant them modern production equipment and some services. In this case economic growth could be substantially accelerated with the help of imported technology. If, however, their agricultural imports must grow substantially, the developing countries will not be able to import production equipment and services. Efforts should therefore be made to enable them to cut their food imports by developing the domestic agriculture and by the establishment of regional agricultural co-operation.

In the previous chapters we have pointed out that, given a rapidly growing population and a general backwardness in agriculture, the development of the latter must have an import-saving character. It should therefore be taken into account that from the angle of world economy the extension of the cultivated

areas will become inevitable. We do not mean to say that this requirement should be given priority in every country or irrespective of the prevailing special conditions. But it is quite obvious that the needs of the domestic economy, of the regional division of labour and impulses coming from the world economy will, sooner or later, make it imperative to claim new areas for cultivation.

The size of these areas, as we have said before, has not been unanimously estimated. FAO<sup>11</sup> estimates the unused but cultivable areas not higher than at 300 million hectares, whereas Salter puts them at 520 million hectares.<sup>12</sup> According to these authors, 360 million hectares can be found in Latin America and Africa, 40 million on the islands lying south of Asia and 120 million in the advanced world.

### Increasing Hectare Yields

All developing countries must increase their hectare yields. The history of economy testifies to the fact that by the better exploitation of land mankind has achieved great results. Significant investments have invariably been needed for boosting production, be it by increasing hectare yields as it was done in thickly populated areas like Europe, or by extending cultivation in the low-density areas like the United States. According to FAO data, the rise in agricultural production in the decade from 1950 to 1960 was largely due to the increase of hectare yields. The data show that the differences between the advanced and the developed countries with regard to the hectare yields have continued to increase even in this decade.<sup>13</sup>

It is often said, without much avail in itself, that the food problems of the world (not only the present problems but also those that are going to crop up in the forthcoming decades in more and more serious forms) could be solved if the hectare yields of the developing countries were to catch up with those in the advanced countries. And it is usually added that, if the population growth in the developing countries continues at the present pace, even a simple catching up will not suffice. Everybody readily admits that the rapid rise of agricultural yields comes up against economic and social difficulties which can only be overcome by the aid of the achievements of the growth process.

We can go deeper than these general statements and well-meant truisms only by intensively studying the agricultural problems of the tropical countries, accord-

<sup>11</sup> *Production Yearbook*, FAO, 1961.

<sup>12</sup> R.M. Salter, *op. cit.* (p. 76).

<sup>13</sup> The yields per unit area fail to reveal the tremendous discrepancies existing between the advanced countries and the developing ones. On the other hand, if we take the value of production per grown-up man at 100.0 in North America, it is only 4.5 in Tunisia, Venezuela and Panama, 4.0 in Iran and Morocco, 3.0 in the Philippines, 2.0 in India, Thailand and Guatemala.

ing to geographical and production types, on an international scientific scale, and by establishing the norms of rational human actions on this basis. But such an international scientific enterprise will have to concentrate research on the concrete natural and economic conditions, and not on socio-psychological factors which are otherwise of great but secondary importance, being the products of the social and economic relations. The agricultural workers who live under primitive agricultural conditions fundamentally affected (or rather determined) by nature also act rationally and reasonably. Their rationality, however, differs from the norms of rational action evolved under the radically different conditions of an advanced economy. Once growth is started, conflicts indeed arise, since under the new conditions the people continue to act in compliance with their customs and traditional norms. The first and foremost task of agricultural policy is to establish a programme of rational actions, i.e. of economic growth for each agricultural type.

Obviously, the weight of actions and efforts must be centered round the mobile factors influencing production by which relatively fast changes may be expected. In the tropical economy water supply is considered to be such a factor. This statement is borne out by the whole history of tropical agriculture. It is by no means incidental that the Chinese, the ancient Egyptians, the inhabitants of the Sumerian and Accadian empires and of India, the *pueblos* in Mexico, the Incas of Peru, the indigenous population of the Island of Bali and of the Hawaiian islands pursued farming based on irrigation. It is also common knowledge that the associated activities developed the science and organizational skill of these peoples, and promoted the concentration of the political and economic power.

It is, then, quite understandable that large-scale projects of regulating rivers and waterways are among the major objectives contained in development projects. Let us just remember the regulation of the Nile (Aswan), the Volta, Niger, Ganges, Brahmaputra, Muhong and Mekong, invariably connected with irrigation projects. In the monsoon regions great importance should be attached to complementary irrigation and to the construction of water reservoirs (e.g. in India and Pakistan) allowing the irrigation of several million hectares.

But in connection with river regulation it should be kept in mind that in the monsoon season the flooding rivers cover the soil, leached from year to year, by a layer of fresh mud. And if river regulation restricts the floods to limited areas, it is not possible (at least for the time being) to supply such vast amounts of organic and mineral substances as nature used to provide after its own fashion which mixes blessing with destruction.

By the careful regulation of the water level it should be ensured to have an alluvial deposit layer built up all along the river and in its delta, suitable for high crops if properly fertilized.

## The Significance of Soil Amelioration

Another factor capable of quick results if properly utilized is the use of fertilizers. It should, however, be remembered that fertilizers cannot be used for many tropical soils (for instance, hot sandy soils). In general the types of the necessary fertilizers should be selected with due regard to the interaction of soils and crops. There are, of course, many other forms of soil amelioration which, for lack of natural manure (though faeces are widely used in certain areas), may prove useful and in some cases may even be fitted into crop rotation. S.R. Sen<sup>14</sup>, an Indian author quoted earlier, looks upon the use of fertilizers in India as a promising method.

The natural requirements of agriculture demand the application of entirely new methods in developing countries. The road to be followed cannot be exactly foreseen but what is needed is a strong concentration of the forces of world science, a thorough study of the conditions, patience, tenacity and an unfailing spirit of experimentation.

For instance, attempts should be made to protect the soil from heavy precipitation and sunshine during the growth season of the field crops; to introduce tree nurseries in forests; to ameliorate the original grass cover of the pastures and the savannahs used for nomadic grazing by sowing and fertilizing, to introduce breeds better performing and more resistant to diseases, etc.

## The Three-phase International Aid

The international aids co-ordinated with the domestic efforts should be used in three stages.

In the first stage, a long-term project of agricultural development should be worked out as a temporary hypothesis, then experiments should be started and conducted to find the agrotechnological processes, chemicals, fertilizers and machines best suited to the conditions and their mode of practical utilization in farms. It may have grave consequences if the advocates of the new methods and processes, for lack of necessary information, make mistakes and introduce reforms not adequately suited to the local conditions. It is always necessary carefully to investigate and check actual peasant practices; under the cover of tradition and even superstition much of primitive wisdom and practical finding may be hidden. On the other hand, the reckless introduction of foreign methods may do much unexpected harm.

In Burma, for instance, deep ploughing suggested by Western experts broke the impermeable layers running beneath the rice fields, thus causing absorption of water by the lower layers. In the same country, after the destruction of weeds

<sup>14</sup> S.R. Sen, *op. cit.* (p. 76).

in the rubber plantations the hectare yields went down.<sup>15</sup> In the past decades it occurred even in some European countries that wheat provided with artificial fertilizers suffered more from drought than without them. The experts found later that only rapidly maturing crops are suitable for fertilizing.<sup>16</sup>

An exchange of experiences between the agricultural experts of the country concerned and the foreign representatives of agricultural science is highly desirable before decisions regarding agricultural development are taken.

In the first stage the foreign aids should provide not only agronomical know-how and material means but also foodstuffs (for instance, corn) because under the conditions of a deteriorating export-import balance, amidst grave troubles of food supply the government and the agricultural experts of the country will not be able to concentrate on long-term tasks. (We do not wish to dwell on the political tensions necessarily concomitant to the deteriorating situation in food supply since we have mentioned it on several occasions and with great emphasis.)

The introduction of this first stage of experimental character does, naturally, not involve the postponement of the tasks which seem more or less clear from the beginning as, for instance, the expansion of the irrigation system.

The second stage of development begins (about ten years later) as soon as the mass diffusion of the knowledge crystallized during experimentation as well as of equipment and materials can be started. In this stage it is of particular importance to suit the agricultural propaganda to the available material facilities. In other words, if the mass diffusion of some procedure, equipment or material has been started, the economy must not run out of it at the very middle of the campaign for their introduction.

If the leaders and the middle cadres of agriculture have acquired a sufficient knowledge of the results of experimental production in the first stage, then the mass training of the local cadres should be started at home in the second stage. In this stage the granting of the credits should be shifted from the foodstuffs to the means of production. (By international agreements it can be secured that the countries delivering equipment should manufacture economical series. This is one more reason in favour of multilateralizing and co-ordinating the aids.)

The second stage of development takes a long time in most cases since the introduction of new methods and equipment requires a vast organization and a thorough know-how from the economic leaders, mobility, skill and confidence from the producers. The available material means, even in the case of foreign aids, are restricted because the balance of payments must not be overloaded be-

<sup>15</sup> J.S.M. Furnivall: *Colonial Policy and Practice*. Cambridge University Press, Cambridge, Mass, USA 1948.

<sup>16</sup> *Report of the FAO Mission for Greece, 1947*. The publication by UNO (New York, 1958) entitled *A Special Study on Economic Conditions in Non-self-governing Territories* also points out that the European method of complete weeding may be very harmful because it destroys the structure of the soil and exposes its organic materials to rapid oxidation. According to this report the intensive farming methods used in Europe may involve catastrophic consequences elsewhere.

yond a certain limit. Moreover, the reasonable use of any foreign aid requires the concentration of large domestic forces. The world-economic aspects of the credit conditions and their repayment should also be carefully weighed. Owing to the present world boom of investment, the prices of productive equipments are rather high, whereas the prices of the tropical products to be delivered in the course of amortization have a long-term falling tendency.

The third stage of development begins when the production and the exports of the given country have unfolded and when the necessary technological equipment has attained such a level at which only replacement and some investments for continued modernization are required. Also the supply of experts can be slowed down to a rate corresponding to that of normal growth.

In this stage, in the co-operation with the neighbouring countries, the domestic manufacture of such means of production as are suitable to promote the chosen direction of agricultural development can be started. In this respect, what remains to do is to exchange international experience in an organized manner and to apply contemporary production methods.

In this situation, the weight of the foreign credits and technical aid should be transferred to fields where the production problems are still unsolved.

The establishing and implementing of such programmes for decades to come obviously require great efforts from the advanced countries and the international organizations. It is necessary to arouse the interest of the agricultural experts and scientific agriculturists of the world in the extremely intricate agricultural-political problems of the developing countries. Large-scale international scientific enterprises are to be organized for studying, elaborating and analysing these questions of paramount importance. The beginning and the continuation of the experiments necessitates the concentration of further great intellectual and material forces. Thousands of well trained experts and specialized teachers should be sent to the developing countries to introduce and popularize the achievements in wide circles and to train the lower cadres at home.

The present circumstances of the world economy obviously postulate such efforts and even sacrifices, because without the fast growth of the agricultural production of the developing countries the food problems of mankind cannot be solved. Should the advanced countries and the international organizations fail to fulfil their tasks, we shall have to face growing political and economic crises in the last decades of our century.

### Agricultural Manpower and Its Training

We have touched upon the problems of agricultural manpower on several occasions and from several angles. We have mentioned the fact that in the overpopulated countries there will be an excess of labour for a long time to come. Hence, for the time being, there is no need of the labour-saving type of mechanization. The situation is, naturally, different if by mechanization new areas can be brought under cultivation (without the risk of destroying soil fertility).



The bulk of the excess of labour should be utilized first in agriculture without hampering the organized and spontaneous development of industrial production, chiefly for improving the natural conditions of agriculture (for instance, irrigation), for developing the services (for instance, road construction), as well as for evolving labour-intensive crops.

In other words, live labour should be used temporarily wherever the tasks of production or of improving the infrastructure can be accomplished by labour in the same or approximately the same quality as with the help of machines.

In sparsely populated countries (or regions) where the labour reserves are in the long run restricted, it is not possible to rely exclusively on live labour in the course of improving the natural conditions of agricultural production and of developing the services.

Agricultural experts will have tremendous tasks in the course of bolstering production. The agricultural producers are generally poor in capital, and the road to slow accumulation (through generations) permitting the gradual adoption of more advanced production methods is impracticable. Rapid development is in the interest of the nation, the region, the continent, and of world economy. It follows that the efforts to boost production have to be made collectively. This statement is confirmed by the fact that tropical agriculture anyway requires co-operation and the overwhelming majority of the producers live in collective communities. (Let us remember, for instance, the *ejidos* developed from the former Indian rural communities, which certain Mexican governments wanted to liquidate but which still survive.)

If the great majority of the efforts are made collectively, the middle cadres in agriculture ("technologists", i.e. foremen, brigade leaders, the leaders of the various branches of cultivation, etc.) will have a decisive say in the operative organization of production. Therefore these should be trained with particular care. In the long run it is most expedient to train them in specialized secondary schools and, for short term, on specialized courses.

But simple agricultural workers should also be trained, for instance, in courses attached to village schools.

The higher agricultural leaders must gradually acquire university qualification. In agricultural research and higher education international aids will continue to be necessary for a long time, the forms of which may vary within wide limits. University students studying agronomy should, most expediently, spend the greatest part of their terms in their own country. Agriculture is so closely linked with nature and with the geographical circumstances that studies in foreign countries may often impede the full and consistent understanding of the domestic problems. If there are no domestic university lecturers, foreign ones should be invited. In such cases the foreign professors and teachers will become interested in the problems of the country's agriculture and can be engaged in agricultural research work.

Thereby it is possible to ensure that the students, until the development of a domestic university staff of teachers, acquaint themselves with the problems of

their country and agriculture in a manner enabling them later to assume leading posts.

We have stated on several occasions that only the government, i.e. the central power, is capable of starting and stepping up economic growth in the developing countries. It is the task of the central power to develop the growth project, to condense it into a programme of concrete actions, of creating the social and political conditions promoting development, of initiating and co-ordinating the various programmes. The central power, however, only directs the economic activities, influences and controls the endeavours of the economic units, but does not and cannot act in their stead. The concrete economic processes take place in these micro-economic units and therefore the advancement of the growth process and its success are inseparable from the development and the consolidation of these organizations.

### The Micro-economic Structure of Agriculture, Farm Types

Yet the micro-economic units are governed by their own laws of action and have their own interests, stemming from those of their members, employers and workers. The central leadership should invariably take into account these laws and interests. In other words, the growth targets embody not some abstract social interest but a compromise between the strictly rational interests of the national economy and the interests of the micro-economic units. It is important to find a compromise because the conflict between the two kinds of interests cannot be eliminated. On the other hand, the means and incentives to be applied in the course of influencing the micro-economic units should be selected so as to make these economic units act according to their own laws of action in compliance with the target to be attained.

In the agriculture of the developing countries very different sectors and ownership relations can be found. When influencing production it should be remembered that the means to be used vary from sector to sector.

In every social economic system there are ownership relations that are in keeping with the system and with the interests of the national economy and also such, though in minority, as are opposed to them. The latter category includes, in the developing countries, the big estates, whether these constitute contemporary capitalist plantation farming or the employment of share tenants. (With the obvious addition that the latter is a much more negative factor than the former because it creates almost no commodities for the domestic market or for export, which could help preserve the equilibrium of the balance of payments.) Hence the land reform is indispensable although it can be conceived in a gradual form which protects the country from major political commotions and from commodity shortages.

In the course of the land reform, unless accomplished as a result of revolutionary development under particularly favourable conditions, the owners of the land

should be indemnified in a manner promoting the transfer of the capital extracted from agriculture into industry. (The most expedient method is to pay the indemnities in instalments in the form of industrial shares.)

In many developing countries a kind of small holding has developed whose ownership relations are rather uncertain. These small holdings sometimes produce also for export yet the bulk of production is for subsistence.

But in most developing countries the primeval forms of land property and use have survived in some respect. It is of paramount importance to fit the social formation inherited from the remote past into the conditions of contemporary economy. In the given circumstances it would not be expedient completely to destroy the ancient community formations and to substitute for them privately owned small and medium-size farms.

The following considerations speak in favour of maintaining the collective property, in a more contemporary form:

a) the individualism of the people living in ancient social formations is less developed yet, and their attachment to, and confidence in, the community is stronger than with people living in the advanced countries;

b) these layers are, for the time being, more keen on security than on high individual profits;

c) owing to a serious lack of capital and to the restricted possibilities of accumulation, viable small holdings cannot be expected to develop;

d) in tropical agriculture there are many such factors promoting production as can be set in motion only with collective efforts;

e) a contemporary collective economic unit developed from the ancient social formations will be able to replace the privately owned large estates without involving a decrease in production.

### Co-operatives in Agriculture

Experience has proved that farming co-operatives as collective economic units, while preserving certain elements of the ancient formations, are able to train the membership for up-to-date activity and mutual assistance; they are capable of accomplishing the intricate organizational tasks on which the advancement of agriculture and of the rural community depends.

The *ejidos* of Mexico can be quoted as excellent examples of preserving, i.e. modernizing the ancient social formations under contemporary conditions. We have no space to describe the struggles between the *ejidos* and the *haciendas* but only wish to point out that in the years of 1920 and 1921, about 40 per cent of the population lived in *ejidos*.

Later constitutions did not define the role of the *ejidos* appropriately. In 1949, finally, it was officially proclaimed that the agricultural system of Mexico rested on two pillars, the *ejidos* and the private small holdings.

By this time the *ejidos* comprised 60 per cent of the agrarian population and possessed 50 per cent of the arable land. In the past decades the development

of these classical rural communities into modern co-operative large-scale farms has been accelerated.

It is, naturally, an extremely hard task to assess the role of the *ejidos* in the stormy centuries of the past and at its great historical turning points. At any rate, the following facts are beyond any doubt:

a) The *ejidos* are organizations complying with the requirements of the Indian population and suitable to transformation. At the outset, they ensured only a low standard of living but granted existential safety and had a penetrating impact on economic life and also beyond it.

b) The confidence of the Indian population in the *ejidos* has made it possible for the government and the society to carry the impulses of modern life to the Indians.

c) It was possible also to boost agricultural production, although the pace of development in the *ejidos* lagged behind that of the whole agriculture because the small individual holdings were more inclined to innovation and taking risks. The production of the *ejidos* has, during the past two decades, increased by an annual average of 2.5 per cent, as against the yearly rise of the total agricultural production of 6 per cent, a very remarkable achievement.

No doubt, the development of the *ejidos* has had certain negative features:

a) The preference of social security over prosperity in the *ejidos* has resulted in a system of moderate incentives, more accurately, the incentives afforded by them were less effective than those in the small estates, most of which have been owned by *mestizos*.

b) Outstanding agricultural organizers trying to achieve higher incomes often left the *ejidos*.

c) The leaders have had a hard job to convince the members of the necessity of stepping up investments.

Yet in spite of these negative features, the *ejidos* have, obviously, played a great role in the development of Mexican agriculture. In addition—and this is the most important aspect from our standpoint—they have represented a productive and efficient means of transforming the traditional rural communities into contemporary economic formations.

The balance of the activities of the *ejidos* from this angle can be summed up as follows:

a) The form corresponding to the traditions and desires of the population has reduced the political and social tensions necessarily concomitant to the process of transformation.

b) This form has proved efficient also for increasing production; its growth rate must not be compared with that of other types of property existing in Mexico but with the circumstances that would have prevailed without the *ejidos*. (This is by far not a mere theoretical assumption because in the past there were regimes which tried to hamper the activities of the *ejidos*.) An Indian population that would have lost their traditional social frame and institutions by the disintegration of the *ejidos* would have obviously stood up against modern life whose first im-

pulses would have deeply offended their primeval sense of collectivity. Such a step could have involved the major part of the Indian population in a tragedy.

c) Experience has proved that—beside adopting the principle of ensuring social security—more incentives must be given to the growth of production.

d) The problems of investments must be solved by such tax cuts as apply to the incomes of the producing community (co-operative) only if a growing portion of them is assigned to investment.

The co-operatives developing from the traditional social-productive formations may play a decisive part in the economic, social and political life of the village community. Co-operatives are needed not only in the course of transforming the traditional social formations but also after the dissolution of the large estates, since it is expedient to avoid an all too deep splitting-up of the cultivated area. In the United Arab Republic, for instance, the big estates have been taken over by co-operatives whose membership is largely composed of the former leaseholders; these are now making the production plans, organizing the utilization of the machines and handling the irrigation equipment.

By undertaking and solving concrete economic tasks the co-operatives can rally the small peasants who are poor in capital, are sincerely inclined to co-operate and to take part in joint undertakings because they cannot dispense with the equipment which can be procured only through the joint efforts of the community.

### Production and Marketing Problems that Can Be Solved by Co-operatives

Let us now analyse the concrete economic activities requiring the establishment of co-operatives as most suitable economic forms for the accomplishment of the given tasks.

a) The organization of irrigation, the handling and operation of the relevant constructions create particularly favourable preconditions for the setting up and consolidation of co-operatives. Let us recall in this connection the Gezira scheme organized for cotton production in the Sudan. At the beginning the members are to invest labour, and this permits the development of irrigation societies into general (possibly production) co-operatives. The building of large irrigation works can, naturally, not be conceived without the aid of the central power. But even in this case the co-operatives can serve as media for the state aid.

b) For bringing virgin land under cultivation (for instance, in Dahomey) the machinery, plans and fuel are granted by the state. Yet it is obvious that the co-operatives will have the leading role in launching production, in providing manpower, in planning and supply. The same applies to the cases when certain areas can be brought under cultivation only by soil amelioration undertaken by concentrating great forces.

c) The co-operatives can organize the supply of fertilizers and other means of production for agriculture. But this task can be accomplished only by an organi-

zation which is markedly decentralized (i.e. is present in every place where fertilizers must go), is well acquainted with the local conditions of production and has a well established frame. The passing on of these tasks to the co-operatives enhances their authority and also promotes the non-speculative distribution of these goods.

d) Agriculture also needs certain machines, if only a few at the outset. It is therefore expedient, for the rational utilization of the mechanic energies and capacities, to organize the common use of the machines.

e) A gradual transition from subsistence economy to money economy may be promoted and facilitated by credit co-operatives. The transition may be accomplished in different forms: by credit security or co-operatives of mutual aid. In this connection I should like to refer to the example of Togo where the members of the co-operatives deposit their common capital in the bank which grants credits ten times the deposits and acts also as a consultant. (This complex aid by the bank is highly desirable since the co-operatives are short of cadres versed in accounting and administration.)

f) It is of paramount importance for the co-operatives to organize for themselves the marketing of their products through marketing boards or similar organizations, as well as the provision of the rural population with consumer goods.

g) Finally, the co-operatives may undertake the simple industrial processing of certain victuals.

Co-operatives having (or acquiring and establishing) a wide range of tasks may become not only production centres in the villages but also social centres. For this purpose they must co-operate in meeting needs and demands which institutionally constitute the tasks of the community. As a flagrant example we would like to refer to the "community development" in several countries. In the United Arab Republic, for instance, part of the co-operatives' profits are used in the interest of the villages. In certain villages of India and Tanzania the co-operatives have organized cultural centres, hotels, libraries, colleges and even health services. In India there is a project to make the prosperous rural co-operatives the principal bases of the agrarian-industrial centres to be established later.

The co-operatives, from the provincial centres to the national centre, find themselves in the necessity of training and educating the thousands and tens of thousands of their cadres. This activity of theirs is of great significance for both the provinces and the state; in order to reduce the considerable shortage in qualified manpower, the various organizations of the parties and the state often employ graduates from co-operative schools. This means a kind of loss for the co-operatives yet also involves advantages such as enhancing their social authority, contributing to their consolidation and expansion since their activities are well known and appraised by the leading state and party officials.

From these considerations it logically follows that in the developing countries the co-operatives represent the economic organization (micro-economic units) that contributes most efficiently to the boosting of agricultural production and to the modern transformation of the old social formations.

## State Subsidies to Co-operatives

Owing to the great shortage in capital, the co-operatives are unable to accomplish unaided the tasks outlined above. Hence a precondition of their development and vitality is state assistance. Thus the co-operatives of the developing countries follow another line of development than required by the "classical" co-operative principles evolved in the advanced capitalist countries; they develop in close economic and political co-operation with the state power. Hence the co-operatives constitute a safe pillar of the economic policy of the state in the multi-sectored economy.

The amount of active and fixed capital used in agricultural production has a great impact upon the trends in the advancement of agriculture. However, agriculture can invest chiefly—or almost exclusively—with the help of the state, because the capital goods to be utilized are almost exclusively of foreign provenance (machines, fertilizers, irrigation equipment, possibly brood animals, etc.).

The agricultural investments have a lesser inductive effect than the industrial ones, i.e. have a smaller impact on the growth of other sectors. On the other hand, a backward agriculture is unable to follow the impulses exerted by other sectors.

If industrial production rises fast and increases thereby both the purchasing power and the demand for agricultural products, agricultural production does not follow automatically in its wake. Since, however, in countries where the standard of living is low, the increment of the demand goes chiefly for food, appropriate investments must be made in agriculture to meet the increased demands from domestic production.

It follows that a significant part of the accumulation is to be devoted to agricultural investments. The advanced capitalist countries assign 7 to 8 per cent of their national incomes to production investments, of which 2 to 3 per cent go to agriculture. When assessing these proportions several circumstances have to be considered: the rate of accumulation is relatively high (20 to 24 per cent or even higher in certain cases and in certain years) but the ratio of the direct production investments is relatively low (30 per cent of the total investments). The notion of agricultural investments, in an advanced economy, may be interpreted in various ways. Thus, for instance, investments serving the output of agricultural machines or fertilizers may, in a certain sense, be looked upon as "agricultural" investments.

The developing countries require comparatively more production investments, whereas for housing purposes no such large material means can be allocated as in the advanced capitalist countries (25 to 30 per cent).

A significant part of the investments, chiefly those with a slow rate of return should be made by the state. This applies to the following fields in particular:

- a) investments for improving the natural conditions of agricultural production (irrigation, soil amelioration, etc.) or for claiming new land;
- b) investments for the development of model state farms;
- c) expenditure aimed at the production of selected seed and animals for breed, and at experiments for the selective new breeds;

d) other investments for agricultural research, experiment as well as training. In addition to direct state investments, credits should be granted to the economic units in an appropriate form. Such credits are needed, for instance,

- a) for the acquisition of artificial fertilizers,
- b) for mechanization if this is desirable. (We have touched upon the problems of mechanization earlier and here we just want to recall that mechanization is needed only if the capital-goods cannot be replaced by live labour.)

The credits of course are to be granted by a bank, with the state vouching for them. Yet the banks should be able also to grant credits not warranted by the state, e.g., to the co-operatives and rural communities. It is expedient to grant credits in kind, such as means of production, seed grains, animals, etc. rather than in money.

Since the farming units are poor in capital they are unable to make slow-returning investments; these should be made by the state. The task of the farming units is mainly to make investments from their own means to ensure an immediate increase in yields (for instance, purchase of fertilizers). Crop-increasing processes coupled with a ruthless exploitation of the natural resources should, however, be prohibited.

When setting investment targets, developing the forms and methods of production, irrigation and management, it should invariably be kept in mind that we have to do with a multi-sectored agriculture. Obviously, the activities in the various sectors can only be directed toward the planned growth targets if the interests and reactions of each sector are given the necessary attention.

### The Economic Environment of Agriculture

The economic environment of agriculture should be examined from two angles:

- a) The various social aims of production which can be deduced from the economic environment may often be contradictory and therefore their optimum combination must be found.
- b) The economic environment has a decisive influence on agriculture, either promoting or hampering the attainment of its targets.

The gravest conflict between the social aims of agricultural production materializes between the targets of increasing exports and of supplying domestic market of food. On the other hand, owing to the one-sidedness (lack of diversity) and the backwardness of agricultural production, growing quantities of agricultural goods have to be imported. We have already pointed out that the exchange of tropical commodities for staple foodstuffs continues to go on under conditions worsening from year to year. Thus, the international division of labour based on this type of exchange is becoming utterly unreasonable.

It follows that the major part of the available material and intellectual capacities should be assigned to the diversification of agricultural production and thus to prevent the export-import balance of the developing countries from taking



a catastrophic turn. The tropical export crops must, naturally, not be neglected because the country is in need of foreign currency, but such incomes should be increased mainly by raising the yield per hectare. And in any case, such exports should be developed only up to the limit where the resulting income in foreign currency is maximum, i.e. the quantity exported must not be increased to an extent that would involve a fall in the world market price. As, evidently, it is hardly possible for any individual country to decide where this limit lies, regional or world-wide agreements of the developing countries interested in a certain export crop, setting export quotas for each of them, should be encouraged.

The trends in agricultural production are decisively affected by the economic environment, i.e. by the historically evolved level of the economy. On this level—among other things—depends the optimum time table of implementing the investments, including the decisions on the technical and qualitative features of implementing.

The agricultural investments, unlike the industrial ones, are rather split up, i.e. establishments of various nature and purposes must be brought about simultaneously. The construction enterprises must divide their activities between various sites at the same time. The rational or irrational methods of implementing, the level of construction costs and the duration of implementing decisively affect the pace of agricultural development.

It is highly important for agriculture to be permanently supplied with the necessary means of production. This cannot be achieved without proper organization. If the means of production are not delivered in time for the seasonal works, if their distribution in the villages is slow and complicated, if the stocks of spare parts are insufficient in quantity and nomenclature, if the supply of fertilizers, seed grains, fuel, etc. is late for the season, agricultural production will lag far behind the rate that could be attained with an appropriately organized supply.

The transport of agricultural products also undergoes qualitative changes during the growth process. Formerly, it was considered enough to ensure the transport of the export goods from the plantations to the seaports by constructing a few roads or railways. But as soon as economic growth starts, many new requirements must be met.

a) In order to ensure the food supply of the population a growing amount of products must be conveyed to new urban and industrial centres.

b) Owing to the diversification and growth of agricultural production, a supply of marketable products appears in regions where the existing transport facilities are insufficient.

c) Voluminous goods (e.g. fertilizers and fuel) must be transported to remote corners of the country where there was no demand for them before.

d) With the gradual liquidation of subsistence economy, some kinds of food-stuffs (imported or produced elsewhere in the country) must be transported into the rural districts.

It follows that new highways and access roads must be constructed, an appropriate park of vehicles purchased etc., in order to permit agriculture to step into the

circuit of the national exchange of goods. Otherwise the efforts to boost its production will fail.

In this connection, top decisions of vital importance have to be made as to how the various transportation problems arising from agricultural development should be solved. In most cases, the alternative of "road or rail" has to be faced, but sometimes also the possibility of river transport should be considered. One of the advantages of the developing countries consists in their not being obliged to follow the two-century development that took place in the now advanced countries of Europe and North America, started by developing the water transport on rivers and artificial canals and continued by constructing a vast network of railways, most of which is becoming superfluous and underutilized by the spectacular development of road transportation. The developing countries are free to choose the alternative best suited to them. As regards the transport of agricultural products, road transport, requiring less investment and capable of being handled more elastically than the railroad, is likely to be preferred. New railroads should only be constructed when, in addition to the transport problems of agriculture, also those of mines and/or industrial plants supplying and using voluminous goods are to be considered.

Anyhow, the expected agricultural production should be geographically mapped as soon as possible, in order to record its distribution between regions and types of commodities and to create a basis for the plans of transportation development. When drafting these plans the delivery dates, peak periods, should also be considered in addition to regions and types of goods.

Food-processing industries belong equally to the economic environment of agriculture. The structure of industry developing on a wide scale will also have a growing impact on agriculture as far as production, processing and market demands are concerned. It is therefore obvious that industry heavily affects agricultural production by forwarding to it new demands. (In this sense industry is both the representative and the transformer of the consumers' demands and behaviour.)

In the advanced countries it was the food industry that started the process of integration between agriculture and industry; thereby it has a strong influence or even control over agricultural production. It is evident that this example must not be followed mechanically, since the food industries in the developing countries are still lacking the necessary capital and experience in organizing. Therefore the aim should be for the moment to have both economic branches develop, rear experts, try to meet the growing needs, and only after a certain improvement of their conditions will it be reasonable to put the question of integration on the agenda.

At present, it would seem most expedient if integration were the outcome of a vigorously developing co-operative activity. This would allow to mitigate the inevitable tension in the ancient social formations due to a sudden introduction of outward control accompanied by too many instructions. It should be remembered that if the people in the ancient social formations used to live in poverty, they still enjoyed a relative external freedom because their contacts with the authorities and big economic organizations were very rare and superficial. Hence they per-

ceive as "freedom" even coercion when it acts in the inherited form, almost in the manner of natural phenomena; but they believe their freedom to be jeopardized if they are compelled to accept certain things in the form of newfangled instructions from outside. The greatest significance of co-operative activities in such a community is that the rational reaction to the external coercive economic impulses may result from a free decision taken within the usual framework of the community.

### Problems of Food Supply

In the following we shall analyse the role of agriculture in the food supply of the population.

In this respect, as we have repeatedly pointed out, the situation is very unfavourable since the per capita consumption of carbohydrates and proteins is extremely low in most developing countries; hunger, undernourishment and diseases are part of daily life. The poorest part of the world in this respect is the Far East where the per capita agricultural production is only 53 per cent of the world average. (Taking the world average as 100, the per capita agricultural production is the highest in Australia with 583 per cent, in the United States with 316 per cent, the lowest figures being found in Africa (60 per cent) and in the Far East with 53 per cent.)<sup>17</sup>

To judge from the estimates and calculations of FAO, even this situation is rapidly deteriorating; by 1975, the per capita amount of food calculated for the whole world will be only 90 per cent of the necessary minimum; the output of foodstuffs of animal origin will be not more than 85 per cent of what would be needed. For the year of 2000, these figures show a further decline: they will be 80 per cent and 70 per cent, respectively.

The contradictions between the population and the amount of food production may be enhanced by the fact that the population growth of the developing countries will be higher than expected, as recent computations suggest.<sup>18</sup>

Florence, in his study quoted, collates the present age pyramid of the developing countries with that of England and Wales of 1871. The age group of people below ten has today a much greater share in the population of the developing countries than it had in England and Wales a century ago. By 1975, those below ten in 1960 will attain the age of 15 to 24, causing a tremendous rise in the population of propagative age. This phenomenon, coupled with a fall in mortality, particularly in infant mortality rate, will add up to an unprecedented population explosion.

Neither the present nor the coming world situation reflects, however, the extent of the existing tensions and disparities since the per capita supply attaining 90 per cent of the minimum in 1975 and that of 80 per cent in 2000 are world aver-

<sup>17</sup> R.C. Cook: *Population and Food Supply*. UN, New York 1962.

<sup>18</sup> P.S. Florence: A Note on Recent Age Pyramids in Underdeveloped Countries. *The Eugenics Review*, No. 3. 1964.

ages resulting from an excessive consumption in the advanced countries and overall or partial undernourishment in the developing ones.

According to FAO's 1963 figures, food consumption expressed in calories was 2,050 in the Far East, 2,350 in Africa, 2,450 in the Middle East, 2,500 in Latin America, as against 3,050 in Europe, 3,100 in North America's and 3,250 in Australia.

The problem is seriously aggravated by the fact that the per capita consumption of animal proteins is extremely low in the developing countries and has even declined as against the situation before World War II. The daily consumption of animal proteins (in grams) is lowest in the Far East (8), in Africa (11), and in the Middle East (14). In Latin America the per capita consumption is now 25 grams as against the prewar figure of 30. The consumption in Europe is 36 grams, in Australia 62 grams and in the United States 66 grams.<sup>19</sup>

The determination of the production targets in agriculture should rely on the needs of home consumption which should be calculated in total calories and in protein, then projected according to different consumption and production variants to the expected rise in the population.

At present FAO collates the total consumption expressed in calories with a theoretically established minimum, setting 2,300 for the Far East (2,050 at present), 2,470 for the Middle East (2,450 at present), 2,360 for Africa (2,350 at present) and 2,370 for Latin America (2,500 at present), with regard to the climatic factors. (Let it be noted that the regional averages cover a very wide dispersion by countries, sub-regions and population layers. For instance the average of 2,500 for Latin America includes 3,100 calories for Argentina and Uruguay, 2,000 for Bolivia, Ecuador and Costa Rica and 1,700 calories for the North Eastern parts of Brazil.)

Planning should also take into account the necessary rise in the consumption of proteins and, within the latter, those of animal origin. In most developing countries (except for Argentina and Uruguay) food supply relies on plant products, since 75 per cent of the average calory consumption is made up of cereals, tuber crops, sugar, etc.

The next step is to establish what kind of domestic foodstuffs can be used to meet the needs and how their output can be increased. It is for instance, desirable to meet the domestic demand of cereals by home products, provided that this is practicable under the given climatic and soil conditions; these deciding also the kind of cereals to be grown.

In a substantial part of Asia, for instance, rice is being preferred, so that this continent supplies 56 per cent of the world's rice production. This "preference" in itself, the outcome of geographical and historical conditions, is quite logical since rice is the most characteristic product of irrigation economy.

In Africa, on the other hand, wheat bread came into fashion in the days of colonization. This cannot be looked upon as an advantageous change since this continent yields 4 per cent of the world's agricultural production (figure for 1958)<sup>20</sup>

<sup>19</sup> R.C. Cook, *op. cit.* (p. 269).

<sup>20</sup> R.C. Cook, *op. cit.*

but only 2 per cent of the wheat production. Even, this small amount of wheat is grown in the northern and southern parts; according to our present knowledge, in most parts of tropical Africa it cannot be economically cultivated. If, then, the African consumption of wheat bread is to continue growing, an increasing amount of wheat imports should be envisaged, a heavy burden on the balance of payments.

The conditions for rice growing in Africa are much more favourable, and the actual yield per hectare (about 1·8 ton) is not bad either; yet the share of the continent in the world production of rice is still 2·2 per cent. The question arises; would it not be reasonable to expand rice production? The way of covering carbohydrate demand would be useful for the national economy. The behaviour of consumers could evidently be propiciouly influenced by an appropriate price policy. The growth of rice production would be promoted also by the fact that the share of irrigated areas is constantly increasing in agricultural production. (At present, this share amounts to 11 per cent in Africa; in Asia it is 22 per cent.)

### The Position and Perspectives of Protein Supply

Similar problems crop up in the protein supply. Without an interregional or international division of labour, most developing countries that are at present poor in animal proteins will continue to be undernourished

- a) either because climatic and ecological factors (e.g. the Tse-Tse fly) limit the development of stocks;
- b) or because the dense population consumes most of the crop and leaves no substantial margin for animal fodder;
- c) or because prevailing religious considerations prohibit the consumption of meat and eggs (in India) or of pork, the most easily proliferated kind of animal protein (for all the Moslem population of the world).

Owing to these restrictions, a considerable part of the world's population must consume wholly or mostly proteins of vegetable origin, most of which are "incomplete", that is, unsuited for the complicated requirements of the human organism.

Also the possibilities of the stock-breeding countries and regions rapidly diminish owing to the population growth and the corresponding reduction of grazing areas and fodder crops.

Nevertheless production of proteins could be raised, in Latin America in particular, in the pampas, in the region of the Chaco, in the basins of the Amazon and other rivers.

The development of sea fishing could afford important possibilities to increase the supply of animal protein, especially along coastal lines of Latin America and Africa. The possibilities of fishing are far from being exploited; fish consumption in both continents is rather low.

The intricate agricultural problems of the developing countries, the grave contradictions between the population density and agricultural production have convinced the economists and agriculturists that the food supply of the world can only be ensured by international planning and action programme. FAO will convene a world congress on food problems<sup>21</sup> which is to make, according to preliminary reports, recommendations for the prognosis of two decades (1965 to 1985) concerning agricultural production, investments, manpower, trade and consumption trends.<sup>22</sup>

This plan will be centered in the first place around the problems of the developing countries, in order to define their development targets. Work will start on two levels; a regional approach will be made to the problems of countries belonging to the same geographical and natural regions, on the one hand, and, on the other, studies will cover the production, trade and consumption problems of the various foodstuffs.

There are reassuring signs that the international organizations and the individual states show a deeper understanding of the fact that the vigorous development of the agricultural production of the developing countries requires a wide international scientific and economic co-operation.

The developing countries themselves, particularly the thickly populated ones, must naturally make extreme efforts to liquidate the aggravating food shortages, although the prospective results are rather restricted (within a medium-range period) owing to the scarcity of capital and qualified labour as well as to the low level of technology.

Therefore, wide-scale, effective and many-sided international assistance is a precondition of the development of agriculture and of solving the food problems all over the world.

<sup>21</sup> Cf. *The Times*, December 10, 1965.

<sup>22</sup> FAO has recently suggested a project of forecasting, on an indicative basis, the production of agricultural goods and the food consumption, of the population, covering all countries of the globe. The author has expounded ideas pointing far beyond this project in his *Some Problems of Plan Implementation on the Macro- and Orbi-economic Levels*. Paper presented at the "Confrontation" Conference held in Velden and Vienna, 1968.

## The Short-term and Long-term Impact of Industrialization on the Growth Process

It is common knowledge that the backward and distorted structure (born in the colonial period) of the developing countries can only be changed by a gradual building up of industry. One of the characteristic features of the economic structure inherited from colonial times is that it contains heterogeneous elements not stimulating one another. In the previous chapter we have stressed that this distorted structure cannot be modified simply by developing agriculture, partly because the inductive effect of agriculture upon the other sectors is negligible and also because the international exchange relations that would thus develop would plunge the country into a state of utter insolvency.

From what has been so far expounded it logically follows that we look upon industrialization not merely as the building up of a new branch in the national economy nor as the mere introduction of technology, but as a fundamental change affecting economic growth. Hence, the determination of the ways and means of industrialization is neither exclusively nor chiefly a problem of production and technology. It is an economic and social problem whose correct solution is decisive for the growth process.

### How to Approach the Problem of Industrialization?

During the implementation of the growth process there is a transition from one state (where no or only a weak industry exists) into another (where industry is more advanced). In the course of this "change of state" the conditions of equilibrium should be maintained or at least approached. Obviously, then, the problem of industrialization cannot be solved exclusively on the grounds of technological considerations and aspects. It would be senseless to outline and to try to implement some kind of "ideal industrial structure" taking into account only the available raw materials, manpower and the requirements of technological progress. Nor is it possible to start from the input-output ratios and to assert that the boosting of this or that industry is more or less favourable for the economic development of the given country. Nor do we regard as correct the method of approach examining the problems of industrialization from one single partial aspect, for instance, that of automation.<sup>1</sup>

<sup>1</sup> G. Ardant: Automation in Developing Countries, *International Labour Review*, November 1964.

These methods of examination and approach may, in themselves, be correct, but constitute only one element in the formation of the economico-political conception, in the determination of the growth strategy. Industrialization in a developing economy is, economically, a much more important factor than merely the correct choice of technology or the economic efficiency of some investment interpreted micro-economically.

Industrialization has a decisive impact on the position of the factors affecting economic growth. No correct decision can be made without being aware of its effects and consequences over a short or a long period. These quantitative and qualitative effects extend from the securing of material means necessary for investments through the problems of the period of implementation to the processes induced by the operation of the industrial plants resulting from the investments. It is, therefore, reasonable to examine the question of industrialization—beside considering with care the aspects of economic efficiency in the technological and micro-economic sense—from the point of view of its impacts on the factors influencing growth.

The questions of what and how to develop can only be answered in the complete knowledge of the quantitative and qualitative effects to which the growth factors are exposed.

Lively, and often sharp, debates have developed in the past decades on the problems of industrialization in the developing countries. The debates have been centered essentially around the following questions:

- a) Can the weight of economic growth be transferred at present from agriculture to industry?
- b) What should be the central task of industrialization at the beginning of development: the production of equipment or of consumer goods?
- c) How to choose technology in countries poor in capital yet disposing of vast surpluses of labour?
- d) By means of what economic organizations should production be boosted: small plants or large ones?
- e) How to divide the tasks of developing industry between the state sector and the private sector, and how far should foreign aid be utilized in connection with industrialization?

We believe that a more or less satisfactory answer to these questions can only be given after discussion of the essential economic problems connected with industrialization.

The economic processes and problems connected with industrialization are extremely complicated since an economic analysis can be undertaken on more than one level (the enterprise level, or the national economic level, for instance) and from various angles of approach (e.g. the natural or the financial processes).

It would, however, not be expedient to conduct our analysis separately on the various economic levels since, in the case of central guidance, the effects exerted on the different levels have to be weighed in common.

It seems, therefore, more appropriate to interpret industrialization as one of the most important factors of economic growth and transformation. In this case, the



decisions taken in connection with industrialization and the subsequent actions should be analysed in the light of the following circumstances and processes:

- a) the natural-economic endowments of the given country as seen from the angle of industrialization, i.e. the available potential energies,
- b) the energies inducing changes, i.e. the accumulation of capital and its concrete forms (means of production, technology, techniques),
- c) the character, proportions and equilibrium conditions of the economic circulation for short and long periods in the wake of the changes (including the export-import relations).

### The Natural-economic Endowments of a Country Seen from the Angle of Industrialization

The natural-economic endowments of a country for industrialization are considered to comprise the following factors:

- a) the number of the population of the country,
- b) the population density at present and in the coming decades,
- c) the size of the country's territory,
- d) the quantity of the exploited or potentially exploitable raw materials in the country,
- e) the quantity and quality of the available qualified and skilled labour.

The number and the density of the population will have a heavy impact on the economico-political conception regarding industrialization. In this respect the industrial viewpoint differs from the agricultural approach since a country may be "overpopulated" in the agricultural sense, yet "small" in the industrial sense. The development of countries, where the inhabitants amount to a few millions only and where the raw material resources are small, presents the greatest problems. A large population, i.e. a vast market, is particularly advantageous for metal-producing and metal-processing enterprises. Countries with a large population and rich in raw materials may develop all or most branches of industry at an appropriate rate.

The industrial development of the small countries, on the other hand, requires specialization which can be only achieved through international trade. This statement, naturally, does not apply to all industries since certain branches, like the building industry and most services, are rather independent of international trade. It is a heritage of the colonialist period that present-day Africa consists of small countries. Only three have populations exceeding 20 million (Nigeria, the United Arab Republic and Abyssinia). The population of twelve African countries is smaller than the number of inhabitants in a major modern city (each below 2 million) and the inhabitants of eight countries do not even attain one million. It is, then, obvious that in the industrial development of Africa the regional division of labour must play a considerable part.

In the densely populated countries the extensive methods are of great importance also in industrialization. Utmost efforts should be made to draw a growing share

of the inhabitants into economic activity. Moreover, the application of labour-saving methods is impaired by the scarcity of capital. Later on we shall repeatedly refer to the importance of industrialization achieved by labour-intensive methods from the viewpoint of the economic circulation.

It is quite obvious that industrialization should rely on domestic raw materials. In order to build a contemporary plant, the equipment for production and the know-how must anyway be secured from abroad. If, in addition to this, the raw-material supply is also based on imports, the new industry will hardly prove remunerative at the present technological standard of the developing countries. Moreover, in the industries based mostly on live labour, the costs of production are necessarily high, in spite of the low wages and standard of living. This anyhow means a handicap in the international commodity exchange, and when, in addition, the raw materials must be procured from abroad, the foreign-exchange balance of the industry is almost certain to be negative.

The paramount importance of the domestic raw materials makes it imperative to start and accelerate the mapping of the geological wealth of each developing country. This task, for lack of qualified labour, naturally, exceeds the forces of one single country. It would therefore be expedient to undertake this task under the guidance of continental economic organizations in a wide international co-operation. The research teams and expeditions ought to be organized on a regional basis since the individual countries would be unable to either explore or exploit their wealth alone.

In some African countries, for instance, iron ore of a comparatively good quality (about 55 per cent) can be found. According to estimates that seem to be reliable, the world's greatest potential iron ore resources are in Africa (about 57 thousand million tons, or 295 tons per inhabitant). African iron ore is today being exported to various advanced countries. Obviously, a substantial iron and steel industry could be built upon this ore, even without giving up the export of iron ore, except for a shortage in coking coal at present.

According to energy experts, it is not necessary in Africa to build up large capacities for coal research, since the continent disposes of 40 per cent of the world's water energy; moreover, it is possible to explore large amounts of geothermic energy and to make intensive use of the solar energy; but the relative abundance of the other energy carriers will not alter the fact that, as far as our present knowledge goes, coking coal is indispensable for the production of iron and steel. If coking coal were to be detected in any of the African countries, this could serve as a basis of the iron and steel production of the countries in the region.

Most developing countries are rich in agricultural raw materials, in certain minerals (copper, bauxites, manganese ore, vanadium, uranium ore, etc.), in wood and—among the prime energy carriers—in oil and natural gas. They can supply their textile industry with cotton.

It would be of the greatest importance to explore raw materials for the chemical industry (production of sulphuric acid, caustic soda, chlorine, ammoniac) chiefly to start the production of fertilizers. (But prior to production scientific experiments

should be conducted to find out the kinds of fertilizers that can be utilized for the soils in question.)

The raw materials should be exploited with due circumspection, avoiding both wasteful management and exaggerated caution. It is not necessary to plan for centuries since technological progress will surely offer many new raw materials for use in production. On the other hand, utmost care should be taken where ruthless exploitation could endanger the climate by affecting the water regime. It is known, that an exaggerated claiming of the tropical forests (as unfortunately exemplified by the activities of several Western firms in the past decades) may cause untold harm and, owing to the destruction of fertile soils, may lead to the desert encroaching upon the areas.

It follows from the above considerations that, with respect to the raw-material basis, the industries most suitable for development are the food industries, the textile industry (chiefly cotton), the chemical industry, the production of iron, steel, aluminium oxide, copper, etc., the processing of metals, the timber industry and the manufacture of furniture.

### Other Factors Influencing Production Priorities

Unskilled labour is abundantly available also for industry. Yet in the development of industry the quality of labour is a very important factor since all industries, even the comparatively simple ones, want a relatively large amount of skilled manpower. The training of manpower is, of course, not restricted exclusively to specialized schools, it can be achieved also in the industry itself. This is another angle from which the appropriate time-table of building up industrial organizations is highly important. It is expedient to start the industrial development by such branches as can rely upon a certain amount of experience and skill achieved through handicraft activities.

The gradual development can be ensured in industrialization also by co-operation with foreign firms for the manufacture of the more complicated parts of the end product; later on, this can be taken over by domestic production. For instance, in the case of tractor production it is conceivable that the simpler component parts are manufactured and are assembled in the country but the engines are imported yet for years to come.

In this respect the situation of the consumer goods is easier since various textile goods, crockery, household articles, etc. have their manufacturing traditions.

When building up industry it is also important to consider the organizational skill and experience of industrial managers, as well as the economic environment of the projected plants. In the first stage of industrialization it is not expedient to develop industries requiring an advanced economic environment, wide co-operation of differentiated markets. In other words, with due regard to the faculties of industrial organization and to the economic environment, industries of the "low-dependency type", as they are called in the economic literature, should be preferred

to the high-dependency type. As being of low-dependency types we can quote such industrial branches as produce agricultural hand tools, containers, trolleys, simple machines of power transmission, levers, mixers (for the building industry), tubs, sinks, electric switches and isolators, bicycles, minor ship hulls, etc.

If the faculties of the new industrial leaders are further refined through experience gained in the successful organization of the less complex production tasks and also the economic environment is more advanced, the solution of the more complicated industrial tasks can be started.

The ideal situation in this respect consists in that the new industrial plants exert a growing influence on the economic environment, promote its development and differentiation without, however, becoming dependent on them to an extent that would jeopardize the efficiency of their correct endeavours.

In the course of industrialization the "growth sensitiveness" of the developing economy should always be taken into account, as we have pointed it out on several occasions.

The sensitivity to growth is due to the extreme scarcity of the development energies. The economy cannot afford to waste energies, since this may lead to a slowing down of the development or even to stagnation. Therefore no such solutions as involve high tensions on the labour market must be selected because this would put the burden of further, exaggerated tensions on the whole economic circulation.

The question is sometimes asked whether conceptions and conclusions bolder than those outlined here could be selected. For economic policy the alternative lies not between possible or impossible but between rational and irrational. A bolder course than outlined here could, naturally, be followed for a certain time but this would not be reasonable. Any deviation from the rational economic principles invariably leads, in the last analysis, to decline and stagnation.

Finally, from the angle of the potential energies, attention should be drawn to another new phenomenon. There is a growing number of industries that have, for the past decades, fallen in the hands of the great powers since, owing to their intensive need of capital and high productivity, with due regard to the requirements of the international competition, they ceased to be remunerative even for the middle powers. Besides nuclear-energy industry and electronics, also aircraft production has become so expensive that even such strong countries as Great Britain and France can only develop it in co-operation. Modern technology is advancing at such a colossal pace that some other industries are also likely to embark on this road.

That is why co-operation and common enterprises play a growing part in the industrialization of the small and middle-size countries.

### Energies Inducing Changes

Of the energies inducing changes we shall first examine capital. Right at the outset I wish to point out that not only the dynamics of an expanding economy but also the crisis phenomena derive from the investments. These introduce new blood

into the arteries of the economy enabling it to replace stagnation by dynamics and slow development by swift advancement. The investments, on the other hand, put a maximum strain on the forces of the economy, may engender disequilibrium and create a purchasing power uncovered by commodities, starting thereby an inflationary pressure and bringing about chronic disorders in the balance of payments.

Certain tensions and disorders, as testified by economic history, are unavoidable. But if a new and sound circulation starts in the wake of the investments, a dynamic equilibrium sets in, i.e. the initial tensions relax permitting a certain equalization to develop.

If, on the other hand, owing to an incorrect choice of the development trends, to erroneous calculations or to the weakness of the executive apparatus, new capacities fail to start operating at the appropriate dates or operate less efficiently than would be necessary for the maintenance of equilibrium, then the inflationary pressure increases, the balance of payments goes on deteriorating, no material means are produced for financing new investments, i.e. a growth crisis sets in.

In such cases the government is faced with two alternatives: either to let inflation "run its course" which first leads to political discontent, then to economic difficulties; or to create deflation by reducing investments, state spending and thus purchasing power. These and similar difficulties can only be overcome by proportionally distributing the investments, including the industrial ones, of long-term and short-term return.

When analysing the problems of industrial development it should be stressed that the investments in a country poor in capital cannot rely on the self-financing of prosperous enterprises. The accumulator is usually the state itself though the financing of investments may assume different forms. They can be financed directly from the state budget, or credits may be granted to private capitalists or co-operatives by the state bank or else the state bank may obtain credits from the government of another state or some international organization.

Even in the case of foreign aid or credit, a certain amount of home capital is almost always needed for the accessory and complementary investments. Often the foreign creditor delivers the production equipment but the government is expected to provide for the domestic expenses of implementation (for instance, the construction of factory buildings, roads, water regime, canalization).

We have earlier pointed out that the complementary investments may be even more costly than the production equipment itself. Yet there is a difference between these two obligations: the price of the production equipment appears as a debt to be paid in foreign currency (the narrowest of the many bottlenecks) whereas the costs of construction can be covered by home currency. The amortization period of the investments is another important aspect. When establishing it, the spendings in foreign currency should be compared with the amount of foreign currency obtained or saved by the domestic manufacture of the commodity in question. Another important thing to be realized is that many investments, such as education, health services, road construction, yield only indirect and very late returns. In addition to these, part of the agricultural investments financed and

executed by the state (e.g. irrigation installations, river regulation) also take a long time to be amortized. Consequently, in order to create a sound proportion between investments of long- and short-term amortization, the bulk of the industrial investments should be assigned to the latter category. The relationship between the investments and the growth of the national income is shown by the capital coefficient. Under normal conditions in the developing countries this must not exceed 4, meaning thereby that a one per cent increase of the national income must be achieved by investing not more than 4 per cent of it. When setting the capital coefficient of the developing countries at 4 we start from the assumption that, owing to the underdeveloped state of the infrastructure, many accessory and complementary investments are necessary. An average capital coefficient of 5 or 6 would mean that the investments of long-term amortization exceed the capacities of the economy. This would call for an increase of the proportion of the productive investments and chiefly those of quick return, for otherwise a growth crisis inevitably ensues within one or two years.

The rate of return of the domestic investments largely depends on the length of the period within which the investment is put into operation. In countries poor in capital considerable efforts should be made to reduce the construction time. If the capacity of the building industry and the faculties of the leaders and organizers do not yet come up to the requirements, it is better to start only a few investments and accomplish them in time. If at a certain date new investments require financing but the former investments are not yet in a position to pay amortization, then the amount of the means of payments in circulation has to be raised uncovered. In addition, the slow implementation of the investments necessarily raises their cost.

### The Choice of Technology

All factors inducing changes have a technical aspect. But technology and organization as they develop in a given plant may become an independent factor, affecting other technical processes. Thus the selection of proper technology is one of the decisive questions of industrial policy. At the beginning of economic growth there is a shortage in capital and a surplus in labour. Hence the methods meant to increase production should be selected so as to require little capital and permit the extensive use of live labour. But this statement, like other principles of economic policy, does not apply invariably to every case. The question of technology should also be examined with regard to the use value to be produced in order to find out whether the quality of the products manufactured by the labour-intensive technology can be considered at least equivalent to the products of an up-to-date labour-saving technology. In the textile and clothing industry, pottery manufacture, certain metal processing industries, shoe manufacture, etc. the answer is in the affirmative since, as is well known, the quality of the products of the small industry mostly surpasses that of the products of large-scale industry. The greater labour input is no problem in this case since abundant manpower is available. In metallurgy, however, the

technology used in the big industry yields better products than a small furnace whose products can no longer be used in contemporary economy.

Contemporary technology should also be used for the domestic manufacture of the means of production because backward technology would obstruct the development of other branches.

Finally, contemporary technology should be used also in industrial investments for purposes of export production. We do not mean to say thereby that the production of the traditional export sector loses importance. But for the new large-scale industrial works the production equipment and the technology must be imported and paid for in foreign currency from the export returns. When introducing outdated technology (e.g. purchasing equipment scrapped in some advanced country), export returns will suffer and the commodity exchange will show a deficit.

It logically follows from the above that economic growth should be started on all technical levels existing in a given society to enable all "technical sectors" to participate, by their own means, in the acceleration of development. The partial application of traditional technology has proved to be a very useful factor also in the course of Japan's development.

Very different opinions have been voiced in the international literature on the selection of technology. Some economists insist on the exclusive use of labour-intensive and capital-saving technology; they regard the construction of any major industrial establishment as uneconomical and "prestige" investment.

Other authors, as for instance Gabriel Ardant,<sup>2</sup> consider not only mechanization but also semi-automation and even complex automation indispensable in the developing countries. According to S.A. Palekar,<sup>3</sup> automated and semi-automated factories can be found also in India, in the pharmaceutical and textile industries, in oil refinement, in the chemical industry and steel plants. According to Irving Brown,<sup>4</sup> enterprises settled in Latin America have also embarked on the road to automation (chiefly in the radio, television and automobile industries and in the electric engineering).

On a closer examination of Ardant's views, however, it can be established that he, too, suggests the introduction of "combined technology", saying only that where contemporary technology has to be applied, automation should be preferred to mechanization. He warns the planner not to reject any proposal merely on account of its having a labour-saving character. (In this respect we certainly agree with the author since we have always been opposed to economic decisions based on one single principle). Unemployment in the developing countries should be ascribed not to the lack of demand for products but to the lack of productive equipment. Ardant, too, considers it a correct method to utilize much manpower for the complementary investments. But he wants "the most productive" full employment to be ensured. In this respect he attributes a certain role also to automation and suggests

<sup>2</sup> G. Ardant, *op. cit.* (p. 273).

<sup>3</sup> S.A. Palekar: *The Impact of Automation on Economic Development*. UN, Geneva 1964.

<sup>4</sup> I. Brown: *Automation and Its International Aspects*, (volume entitled: *Jobs, Men and Machines*.) Praeger, New York—London 1963, pp. 58-60.

to meet the purchasing power, increased by the investments, by putting mass products on the market. In order to introduce automation he would like to see the creation of several common markets.

### Automation?

It would, however, be a mistake to think that the penetration of contemporary technology into the narrow fringe of a developing economy would or could solve the problem of industrialization. The automatic plants manufacturing consumer goods in large quantities are unable to influence the other sectors, they cannot induce them gradually to join in the advanced technology. If a large part of the population at working age is employed in the complementary investments, it will still be necessary to import large amounts of productive equipment and food, not to speak of the qualified manpower, projects and organizational skill required by these tasks at a time when there is a shortage in them. The preconditions for marketing the mass products of automatic plants, such as high purchasing power, well-organized market, good infrastructure and satisfactory housing conditions are not available. It is quite obvious that the manpower employed in complementary investments will buy mostly food for a long time to come since their food standard is rather low. Irving Brown's figures<sup>5</sup> for Latin America surely cover the facts yet are no proof of the automation being the correct mode of development. The point is that the foreign enterprises are obviously not interested in applying the type of growth appropriate for the national economy in question; they simply want to be successful competitors on the world market.

At variance with the opinions described so far, E.F. Schumacher<sup>6</sup> advocates the introduction of intermediate technology and criticizes chiefly the conception of the "end-product industrialization".<sup>7</sup> He quotes as an example a factory built in an African country with imported equipment and foreign experts, manufacturing sandals from synthetic material. The factory proved very productive putting on the market millions of "home-made" sandals. In reality 80 per cent of the production costs went abroad. At the same time tens of thousands of small sandal makers in the country went bankrupt, and the resulting loss in the national income was by far not compensated by the net returns of the large-scale production. (It is quite obvious that the "conception of end-product industrialization" is untenable for the developing countries since in reality it hampers industrialization and increases their economic dependence.)

There are many noteworthy elements in Schumacher's considerations yet, in our opinion, his conception is over-driven and one-sided. It should be remembered that the process of economic growth is accompanied by conditions of imbalance,

<sup>5</sup> I. Brown, *op. cit.* (p. 281).

<sup>6</sup> *Statist*, 24 December, 1965.

<sup>7</sup> This conception is expounded, among others, by A. Hirschmann: *The Strategy of Economic Development*. Yale University Press, New Haven and London 1958.



and the social transformation makes stability impossible for a longer period. Consequently, the economic difficulties of the developing countries (food crisis, inflation, crisis in foreign currency, etc) and the lack of political stability (revolutions, insurrections, military coups d'état, etc.) should not be ascribed exclusively to mistakes necessarily committed in the development policy but, in the first place, to objective difficulties. These, as we have pointed out, can be traced back partly to the general scarcity of the growth factors, partly to the uneven distribution of the resources of the world economy of our days. Yet the growth rate must be enforced because otherwise the gap between the advanced and the developing countries continues to widen, and the governments in the newly independent countries lose the confidence of their masses having every right to be impatient.

There is no time and chance for these governments to proceed step by step on the road to technical development through all of its "regular" stages. And I wish to add that a slow economic growth of these countries would have dangerous consequences for the whole world, including the advanced countries.

It is therefore clear, as has been stressed, that development must be started on all technical levels. To restrict growth to a few large factories owned completely or partially by the state would be a mistake since this would exclude the large masses of the population from the process of economic growth. The state factories will, for a long time to come, be unable to supply the population, i.e. to produce all such commodities as would permit the start and the permanent expansion of the exchange of goods between town and village.

It is also quite clear that contemporary technology has developed in countries where the replacement of live labour by dead labour has been necessary and advantageous. In these countries, the technological equipment of live labour, that is, the amount of fixed capital employed per worker constantly increased.

### Simultaneous Functioning of Different Technological Levels

The question arises whether the countries disposing of surplus manpower are to adopt this kind of technology.

Here we should like to quote Japan's example where contemporary technology was successfully co-ordinated with the preservation of small- and middle-scale plants as well as with the very intensive employment of home-workers.

It is common knowledge, for instance, that as late as in the thirties 40 per cent of Japan's industrial production was supplied by plants employing less than 200 workers, and almost 60 per cent of the workers engaged in industry were employed in such plants.

It is thus probable that the development of countries possessing vast surpluses of labour will raise new problems in connection with the proper choice of technology because

a) the growth of production on all technical levels has to be encouraged simultaneously,

b) in the sectors operating on the contemporary technical level, the technological methods of the societies with a surplus in capital and a shortage in manpower cannot be followed and adopted.

In this sense what we regard as most important is not an "intermediate" technology but one in harmony with the economic conditions in the given country. Therefore we do not regard as "window dressing" the construction of high dams and irrigation works in countries where there is a shortage in arable land and where population increases rapidly. The "intermediate" technology cannot solve the food problem, nor can it ensure the long-term equilibrium of the balance of payments since the social processes evolve not at the rate determined by "intermediate technology". It would be a mistake to reject, without further consideration, the construction of steel works or of similar establishments. Steel works are appropriate or inappropriate only as a function of their role in, and effects on, the economic circulation, but not in themselves. Their establishment and operation may exert a technical and economic pressure facilitating and promoting the development of the utilizing branches (not to speak of the direct impacts).

Clear enough, the acceleration of growth and development requires not some kind of "intermediate technology" in which every individual and economic unit makes one step forward, but the simultaneous application of different technical methods (traditional and contemporary ones alike) so that the contemporary technology should contribute to the acceleration of progress on all the other technical levels.

### The Problem of Sectoral Proportions and of Synchronized Growth

We shall now deal with the problem of sectoral proportions developing in the course of the industrialization process.

The most important of them is the growth rate of industry related to that of agriculture. Experience gained in many instances of economic growth proves that an appropriate proportion in this respect is one of the most important preconditions of economic growth; an unproportionate development of the two main branches inevitably disturbs growth and equilibrium.

To raise industrial production in itself (i.e. irrespective of its relations to the economy) is an easier task than to promote agriculture. But industrial production should be raised so that the new products could be marketed (and the domestic market consists chiefly of peasants!), the economic equilibrium could be maintained (including the equilibrium of the balance of payments) and accumulation increased from year to year. But these requirements cannot be met unless agricultural production—consequently rural purchasing power—and exports take a favourable course.

If, however, agriculture is not able to follow the rise of industrial production, the problems below arise:

a) The increased purchasing power of the industrial population (employed partly in the implementation of investments and partly in the newly built industries) cannot be met by agricultural products of domestic origin, so food imports must increase. Consequently, imports of productive equipment must be reduced, and all such reductions slow down or explicitly hamper industrial advancement.

b) On the consumers' market, in spite of the imports, shortages become permanent, and thus the inflationary tendencies become stronger.

c) The growth of the purchasing power of the agricultural population lags behind the increase of the available industrial capacity, whence part of the products of the new industries become unsaleable.

d) The marketing difficulties reduce the profit of the industrial enterprises, and accumulation will stagnate or set back.

e) The population, having initially placed their trust in the government and believed in the correctness and practicability of its development conceptions, feel that their situation has deteriorated since the beginning of the growth process.

In the opposite case, i.e. if the development of the industry is lagging behind agriculture, one must reckon with the following difficulties:

a) The industry as a factor that could promote development also in all other branches of the economy fails to exert its influence in the desired degree.

b) Industry will not be able completely to absorb the manpower becoming superfluous in agriculture.

c) The agricultural products—owing to the lag in the purchasing power of the industrial population—will be difficult to place and their prices may fall. Under such conditions agriculture producing for the home market will lose interest in the development of production. The superfluous agricultural capacity, however, cannot be transferred to the production of export goods since the demand for tropical agricultural products is generally inelastic and a substantial increment in their supply would lead to marketing difficulties and to the fall of export prices. Consequently, an agricultural "overproduction" develops in an evidently undernourished country. It follows that in a developing economy a simultaneous, proportionate and interrelated, i.e. synchronized growth of both industry and agriculture is indispensable.

It is likely that industrial output can rise faster than agricultural production since industry has wider possibilities in this respect; indeed, it constitutes the most dynamic element of economic development. But it cannot be sufficiently emphasized that agricultural production must rise by 5 to 6 per cent annually. If it fails to do so, the rate of industrial development also stops short within one or two years and economic growth loses its impetus.

This statement is borne out by a large number of historical examples. In Japan, for instance, agricultural production has developed satisfactorily, and this has accelerated the whole economic growth. In many developing countries where the development of agricultural production has been slow, the equilibrium has been

disturbed, resulting in a reduction of the growth rate of the national income. In India, for instance, between 1950/51 and 1960/61 the annual rise of agricultural production was 3.52 per cent against an annual 1.98 per cent population increase. The rate of 3.52 per cent was in itself a considerable achievement because from the beginning of this century up to 1940 only a minimum increment could be observed in agricultural production (0.20 per cent between 1920 and 1940), and there was a yearly fall of 0.97 per cent between 1940 and 1950. The national income as a whole increased by an annual 3.56 per cent in the fifties. In the years since 1960/1961, however, the rise of agricultural production has markedly slowed down, whence also the growth rate of the national income is low.

The impact of the growth of industrial production upon the other sectors of the economy should constantly be checked through the input-output balance. The other sectors (mainly agriculture) and the population (the consumers) must, at the beginning, make great sacrifices for the advancement of industry, because for a certain time the new industry is not yet in a position to promote the development of the other sectors. Certain advantages of industrialization, however, make themselves felt in the very first period. Among other things, employment and the purchasing power are rising, the qualification and skills of manpower are being improved, certain imported products can be replaced by home-made goods etc.

But industry can fulfil its dynamic mission only if, with its technology and organization, it gradually penetrates agriculture, the consumer market and consumption itself. This can only be attained after a certain length of time, yet the function of the industrial products in the economic circulation must be carefully watched, and no such industrial structure must be allowed to develop in which the industrial products circulate chiefly within industry itself. It is obvious that after a certain time industry will have to cede development energies to such branches of the national economy (to agriculture in the first place) as have yielded the energies necessary for the start and the initial development. This is required also by the economic equilibrium since the equilibrium of the balance of payments (except for the oil-producing countries) cannot be maintained unless agricultural exports are expanded. Industry must promote both economically and physically (that is, by supplying certain means of production) the development of agriculture.

### The Impact of Industrialization on Economic Equilibrium

The most intricate aspects of industrialization are linked with the problem of economic equilibrium.

The projected model of industrialization has a heavy—often decisive—impact — on the balance of demand and supply on the market of capital and consumer goods (in other words, on the relationship between the amount of currency in circulation and the supply of commodities),

- on the accumulation potential of the economy, especially of the government,
- on the export-import relations, i.e. the balance of payments of the given economy.

Let us investigate these impacts one after the other.

When shaping the policy of industrialization, first of all the proportions of sectors 'A' (production of capital goods) and 'B' (production of consumer goods) are to be determined.

Historical evidences show that there are different variants for the solution of this problem. In the course of industrializing Great Britain and Germany the growth rate of sector 'A' exceeded that of sector 'B' in all periods.

In contrast to this, heavy industry played a very limited role in the first period of the Japanese development. This growth variant was the outcome of many concrete factors, of which the most important are as follows:

a) In the first stage of industrialization there was a great shortage of capital and an excess of manpower. It is common knowledge that the development of the heavy industry requires more capital and less labour.

b) No large quantities of iron ore and coking coal were available. (The pig iron production of Japan was not more than 243 thousand tons as late as in 1953, her steel production 255 thousand tons.)

c) The traditions, accumulated in the former textile manufactures, promoted the development of the textile industry because large-scale technology in this industry does not essentially differ from that used in the small manufactures. Consequently, the majority of the workers could be employed in small and medium plants, for long decades. That is why in Japan the production of the heavy industry started only in the twenties of our century and gained a vigorous impetus as late as at the turn of the thirties.

The socialist countries of Europe, especially the Soviet Union, developed sector 'A' at a much greater pace than sector 'B' in the course of the acceleration of their industrialization. This industry policy was essentially connected with the special political and economic conditions, although it was also justified theoretically. The concrete political and economic conditions can be summed up as follows:

a) The international situation prevailing at the time of the first five-year plan of the Soviet Union (1928/29-32/33) made it evident beyond any doubt that the Soviet Union was threatened by the danger of a fascist-imperialist aggression.

b) The Soviet Union had immense resources of raw materials, an unlimited domestic market and a large surplus of labour. Foreign trade played a restricted role in the economy. Under such conditions it was obvious that all branches of industry had to be developed.

c) After the Second World War the socialist countries of Europe were compelled by the cold war and the embargo to develop such industries as would have been scheduled later for development if conditions in the world economy had been normal.

d) The economic co-operation between the socialist countries created export markets also for the heavy industry of the smaller countries.

e) The socialist countries of Europe dispose of a comparatively advanced scientific basis and infrastructure.

What are the criteria that should govern the planning of the industrialization policy today in the developing countries?

Industrialization is started by the government which secures, through an expansive financial policy, the funds for the investments. (This does not alter the fact that the development funds are scarce.)

If the bulk of the investments is concentrated in sector 'A', the following factors must be taken into account:

a) Requirements of capital are great, and the period of return (the amortization time of the investments) is relatively long.

b) The import of the necessary production equipment requires a great amount of foreign currency, this being in most cases the narrowest bottleneck in the economy.

c) The circulation of the means of payment substantially increases owing to the rise of wages and salaries spent in the investment sector.

d) Plants producing capital goods are limited in the domestic market, which is small, except in big countries like India, Indonesia etc. Thus production can hardly be made remunerative within a short or medium period.

e) The investments in sector 'A' require a particularly advanced infrastructure.

Besides the lack of capital and foreign currency, the long periods of amortization and the high infrastructural requirements of the investments, the problem arises how to meet the purchasing power resulting from the works of implementation. Economic equilibrium cannot be achieved unless the traditional sectors (small-scale industry, handicraft, etc.) can produce consumer goods in sufficient quantity. It may, of course, happen that certain consumption industries developed prior to the heavy industry can fill the gaps existing or expected on the market of consumer goods.

But the policy of industrialization in the big and in the small countries shows essential differences. In the large countries, such as India or Pakistan, for instance, there is a huge potential market, and foreign trade has but a limited function (though of great importance during the growth process) in the national economy, vast labour reserves are present and raw materials are available in abundance. Even these countries, despite the scarcity of capital, have to develop all branches of the domestic industry beyond the heavy industry.

In smaller countries the policy of industrialization cannot be planned without exploiting the possibilities inherent in the international division of labour. Contemporary industries cannot operate economically below a certain scale, and this scale is likely to exceed the demand in a single country. Thus, part of the output must be exported. We shall come back to these questions in connection with the impact of industrialization on the export-import processes.

But it is also important to note that a one-sided development of sector 'B' and the neglect of sector 'A' will again lead to disturbances in the equilibrium.

Several elements of the production in sector 'A' are linked with investments and with the balance of payments. It is clear that in the case of industrial investments not only the production equipment but also the complete technology and the know-how ensuring its rational utilization must be imported. In addition to this, it is necessary to erect buildings, to construct workshops, storehouses, residential housing, to establish a network of trade and services and to solve other similar tasks. Owing to the lack of capital, the financing of all these tasks is only possible when the resources are concentrated. The situation is rendered more serious if also the building materials or an essential part of them must be imported. Shortage in foreign currency is likely to be still more acute than that of capital since the majority of the goods manufactured in the country cannot be converted, i.e. sold for foreign currency. Hence the domestic production of the building materials (including cement and other materials of high solidity) is almost indispensable, and the building industry should be looked upon already in the first period of growth as an import-saving industry. On the other hand, those branches of sector 'A', which exploit or produce raw materials, allow the stepping up of exports and thereby mitigate the lack of foreign currency. The production and the export of raw materials must therefore be increased if there are reasonable possibilities to do so. But it remains to be seen whether their export, under the present conditions in the world economy, can be increased without impairing their price level. The relevant possibilities should be studied carefully since, even in the present world-economic situation and with the present trends in the terms of trade, there certainly exist raw materials that can be exported advantageously.

It should finally be realized that the activities of sector 'B' have hardly any inductive effect on other branches as far as technology is concerned. The level of, for instance, the textile industry or of the furniture industry does not influence the level of the other industries, i.e. does not promote their technical development. (The food industry is, however, an important exception, in view of its great influence on agriculture.) We have earlier pointed out that the attainable inductive effect—which is to be examined concretely and always in connection with the technological conditions of the given industry, with the quality and use value of its products—constitutes one of the decisive elements governing the choice of the investments and the shaping of the industrial structure. These considerations should also be taken into account when weighing the proportions of sectors 'A' and 'B'.

The impact of industrialization upon the equilibrium of the domestic economy (we shall revert to its effect on the international balance of payments) prove that the developing countries must not pursue a one-sided, slogan-directed policy of industrialization. The production of raw materials and energy, the domestic manufacture of the simple investment goods (since they will have an expanding market), the production of the consumer goods must be definitely developed in the traditional, privately owned sector as well as in the state-owned sector (to increase accumulation) naturally within the limits of the available means.

## Industrialization and Relations to the World Market

The gravest problems of industrialization are connected with the relationship between the country and the world economy. The concrete trends in this relation affecting the given country are reflected in the balance of payments.

We have already mentioned that at the beginning, industrialization is necessarily of an import-saving character. With regard to the developing countries this is a kind of understatement since the purpose is not simply to save imports but to create a national economy and to accomplish its integration. In large countries industrial development may, for long decades, preserve its import-saving character since the home market makes it possible to build up the various industries under economical conditions. But even in this case it is important to expose the domestic economy and industry to the impulses of the technological progress surging and accelerating in the other parts of the world.

### Import-saving Industrialization on a Regional Basis

In small countries the period of import-saving industrialization must not be allowed to last long, since the growth of industrial production soon runs against the barriers of the internal market. Such conflicts may occur also in planned economies since even a well planned and harmonious economic policy is unable to change such restricting factors as the number of the population which, within certain upper and lower limits, determines the order of magnitude of the market. In a far-seeing economic policy the order of magnitude of the market may be so influenced as to stay around the upper limit, but the limits of market extension cannot be abolished or eliminated. In the first period of growth the lack of capacities puts a limit to the growth of production but later the limit is set by the restricted extension of the market. That is why the import-saving industries in the small countries must soon be raised to a qualitative level in which they become capable of producing for exports.

The achievement of co-operation between small countries in the same economic region is, then, of particular importance in the first period of industrialization. Such a co-operation is much needed in Africa in either a regional or a continental form because this continent is extremely import-sensitive, the average share of imports in the income being 35 per cent. Here, if the development of the import-saving industries is neglected, not only the national or regional economies but the whole continent may find themselves in an irrational position.

The failure of achieving co-operation may involve the following difficulties:

a) Parallel capacities develop in several countries, making inter-state trade difficult and, later on, may even turn the small countries rivals on the world market. In addition to this, the parallel development of some capacities in several countries may even cause a temporary shortage in raw materials in one or another country and, in particularly serious cases, also with respect to the whole continent.



b) Regional co-operation achieved in industrialization increases the duration of the time during which the product in question enjoys protection against the competition of the advanced industrial countries. This has, of course, also certain negative aspects as the lack of the hardening effects of competition; these aspects can be eliminated or at least reduced by appropriate economic incentives.

c) Without regional co-operation the product in question will have to be put on the world market at such an early date that it can only be marketed at a very low price or even at loss. In other words, the products of comparatively expensive investments can be sold only at low prices and at high transport costs; this means that the amortization of the investments slows down.

As an example I wish to mention the economic co-operation of the European socialist countries. This —achieved in the frame of the Council of Mutual Economic Aid—used to have its shortcomings and weak points. These were connected partly with the insufficient economic experience of these countries (since the type of their economic growth differed from the former industrialization process of the Western capitalist countries not only with respect to the ownership relations but also in its aims and means), partly with the grave international situation (tensions of war, embargo and discrimination which in their cumulative effect almost added up to an economic boycott) and also with certain mistakes committed in economic policy (too ambitious projects and conceptions). In spite of all this, the co-operation decisively facilitated industrialization, as these countries first created mutual markets for their industrial products, and then started to co-ordinate also their investment plans. It is beyond doubt that several small socialist countries would not have been able to develop their industry without this co-operation. Hence, regional co-operation is extremely advantageous for a certain time, even though later on the creation of the extraneous export possibilities for the import-saving industries or for those producing for the common market involves considerable difficulties. (Extraneous export possibility in this case is understood to mean the possibility of selling the given products under favourable conditions to countries outside the common market.)

The developing countries belonging to the same region will obviously be able to include the elements of competition and material interest into the system of their international economic co-operation so as to prevent major difficulties from arising at a later date in the creation of extraneous export possibilities.

In the case of import-saving industrialization (this notion is understood to include a wider, i.e. regional common market) the first thing to be analysed and projected into the future is the import of the consumer goods and of the simple means of production.

Such countries as, e.g. India produce a large part of their internal consumption goods. According to reliable figures, the import of India remains below 20 per cent related to the internal consumption of industrial commodities.

In Africa, however, the situation is not satisfactory in spite of the rapid development of the years between 1950 and 1960, since the consumer goods still constitute 52 per cent of the import (the same figure for 1950 was 70 per cent). On the other

hand, the share of the machines and the means of communication rose from 13 per cent to 21. (The share of the machines alone went up from 3 per cent to 12).<sup>8</sup> But the rise of the raw material import from 17 to 28 per cent testifies to certain mistakes in the policy of industrialization.

Yet in spite of the present situation, the concentration of the import rise around the investment goods should definitely be looked upon as a positive achievement.

Textiles and other consumer goods can obviously be manufactured without major difficulties in the countries of Africa. The same applies to building materials, to certain chemicals and some metal goods.

When establishing new plants, provided the equipment is to be imported, the economic efficiency of the investment (including its amortization) should be calculated also in foreign currency. This is a relatively simple procedure since the foreign-currency expenditure necessary for the new plant (including the complementary expenses in foreign currency) should be collated with the amount of net import saving (expected from the new plant and expressed also in foreign currency).

International computations show that the direct costs in foreign currency assigned to the new plants are soon returned. The relevant examples most frequently quoted are the Greek five-year plan and the industrial establishments in Turkey financed by the Industrial Development Bank. It is also often pointed out that even the investments in chemical plants amortize within two years.

But the computations concerning the economic efficiency of the investments usually extend only to spendings on the construction and the equipment of the plants. When discussing investments we have already said that all major establishments involve the necessity of making many accessory and complementary investments. To give an example: the establishment of any new plant requires a whole series of communal installations whose construction consumes considerable capital. Moreover, the increased purchasing power of the workers and employees must be met with an increased production of agricultural and other consumer goods. The question is, whether this can be achieved without further inputs and imports. It may also happen that the consumer goods becoming necessary in the wake of the increased purchasing power have to be imported, and this also encumbers the balance of foreign currency.

### Import-saving Industrialization and National Feelings

When import-saving industries are developed, the home products will, for a certain time, not have the quality of the foreign products. This economic problem is solved by the customs and price policy protecting, for some time, the domestic products. Yet from the technological point of view the wider effects of the poorer-quality home products must be analysed. The manufacture and

<sup>8</sup> *Economic Bulletin for Africa*, Vol. II, No. 1. Addis Ababa 1963.

accumulation of poorer-quality capital goods may have an untoward effect on the technological level of the purchaser industries. The situation is simpler with respect to the consumer goods in which case the consumers can be expected to tolerate the poorer quality for patriotic considerations and in the hope of future improvement. Today there is no need for the pathetic and often theatrical gestures of the 19th century. But it is important to have a national pride and enthusiasm encouraging the creation of a domestic industry and putting up with certain differences in quality for a certain time for that purpose. Such differences can be observed not only in the quality of beer or cigarettes but also in that of textile goods. But in this field very significant amounts of foreign currency can be saved.

In Africa, for instance, the production of textiles (chiefly of cotton stuffs) covers only 40 per cent of the demand, although this figure tends to increase. Besides, the per capita textile consumption was rather low in 1960: twelve and a half yards. Supposing an unchanged textile consumption and a certain industrial development, Africa will assign approximately 1,500 million dollars to textile imports in 1970. According to the computations of some authors, about the same foreign-currency input would secure the import of the necessary textile machines. Naturally, these computations do not take into account the complicated circulation of economic life. Cotton production must, obviously, be introduced or expanded in many countries, and this requires a considerable amount of investment costs. Some African countries could buy cotton from other African countries but in this case certain difficulties would arise. Even the domestic expenses connected with the building of textile plants are rather high since the infrastructure is undeveloped. Hence, 3 to 4 times more investments and organizational work are necessary for an economical and reasonable utilization of the internal capacities i.e. for the operation of a plant, including the greater demand for food, than is needed for its installation.

It is unreasonable and even dangerous to simplify the intricate phenomena of economic life for the computations of the economic efficiency of the investments. Without understanding these phenomena it is not possible to develop a correct conception of economic policy. But in spite of these reservations and after a wide-scale analysis of the conditions of economic equilibrium it is obvious that it is worth while developing the domestic industry in order to replace the import of textiles. A textile industry created for the replacement of imports may very soon turn into an export branch if the internal technical and organizational capacities attain the appropriate level in this respect, since the developing country, owing to the low wages, possesses comparative advantages. With home-grown cotton and cheap labour the level of export capacity can soon be reached in this industry requiring relatively little capital. Let us refer to the examples of the United Arab Republic, Hongkong, India and other countries which have built up a significant textile export industry. If the amount of available cotton is insufficient, the situation is more complicated because the expansion of cotton production requires foreign currency and qualified manpower, i.e. involves factors scarcely available.

It would be expedient to develop a certain co-operation between the smaller developing countries also in agricultural production because some of these countries will hardly be capable of starting to grow many crops simultaneously. The growing of any new crop requires a definite know-how from the producers, an appropriate production policy, guidance from the experts and a thorough knowledge of the market. These capacities and faculties are obviously restricted whence many new tasks cannot be solved simultaneously.

For the equilibrium of the international balance of payments it seems most expedient to start the replacement of imports—which otherwise is the basis of the establishment and integration of the national economy—in three fields, concentrating every effort:

- a) in agriculture which should be concentrated on the rise of exports and the supply of the population,
- b) in the consumer industries where both the traditional sectors and contemporary plants should operate; naturally with the purpose in mind to enable them to produce for export within a certain time,
- c) in the manufacture of the simple investment goods because the growing investments require more and more constructions (40 to 60 per cent of the investments) and a growing amount of building material.

Later, depending on the level of economic and technological development, the saving of imports may be extended also to other fields.

In this period the export is ensured by agriculture and the production of raw materials. In both fields there are great internal potentialities but the conditions of the world market require wide circumspection. When the production of raw materials earns significant quantities of foreign currency and the geological surveys have lead to the exploration of considerable new resources, it is expedient, perhaps in co-operation with foreign enterprises, to develop part of the raw-material production into production of semifinished and, later on, of finished goods. Special care should be taken to secure markets for the semifinished goods (on which depends the success of the whole economic undertaking).

It clearly follows from these considerations that every new decision concerning investment in a small country is closely linked, through its economic consequences, with world economy and world market. In an open economy not only the decisions relating to import or export, but in fact all decisions should be weighed from the world market aspect since all of them have some kind of impact on the export-import activity of the country.

The importance of the world-economic factors is enhanced by the radical changes brought about by the technological and scientific revolution of our days pervading the economy. Today these factors are active chiefly in the industrially advanced countries but affect also the developing countries through world trade and the world market in the form of various impulses and pressures.

The new industrial branches require large capital investments all over the world and ensure high productivity. Consequently, even the medium-size countries possessing an advanced industry are unable to develop every branch of industry.

Under such conditions the developing countries can become capable of exporting machines or products of the metal industry to the other parts of the world only gradually and after a longer time.

The rapid technological development economically compels the developing countries to encourage the economic sectors (industries)

- that are advantageous for the national economy and promote the internal integration,

- whose products can be exported to the neighbouring countries in the framework of a regional economic unit on the basis of co-ordinated development and foreign trade agreements,

- whose products can be marketed in the other parts of the world.

Such products are, in the first place, the products of tropical agriculture, the raw materials and semifinished goods characteristic of the given country, and the labour-intensive consumer goods produced with the use of abundant and cheap labour. This situation can only be changed by economic growth and by technological development.

### Socio-political Effects of Industrialization

But industrialization, as we have said earlier, is an economic and social process affecting not only the technological standards of the given country but also the habits of the consumers, the way of public thinking and the organization of the actions, processes and events in the life of the given society. Evidently, the changes induced by industry and technology are gradual. Their pace is fast when viewed historically but often seems slow when viewed from the angle of the given government. The point is that the political leaders directing the economic transformation are essentially optimistic, have faith in the measures they take and expect them to be successful. They must cope with thousands of daily difficulties, take measures often contrary to their original endeavours and conceptions, wage a struggle for the maintenance of power and are sometimes compelled to oppose their earlier friends and companions-in-arms; therefore they set their hopes chiefly on the future. They often expect public opinion to change abruptly under the impact of the putting into operation of a major plant, a dam or some other major establishment. Such hopes, however, are hardly justified.

The changes induced by industry and technology are, indeed, reflected in the transformation of social and individual ways of thinking, of the social and individual interests and of the norms of national actions, but all this is a rather slow process. Its rate is determined not only by the pace of economic development but also by the capacity of perception of the people and by the mechanism through which the changes are understood, supported or rejected. A society thinking in traditional categories is slow in accepting new norms. In a society based on traditions, events take place at an established and inherited pace, whereas industrialization activates forces alien to traditional community. These forces

tend to intervene in all processes in the form of instructions and agreements; material interest becomes the chief motive power of human actions. That is why some traditional forces reject, in the name of "freedom", all outer intervention and often turn against the partisans of industrialization.

Yet industry in the making and in operation gradually transforms the life of the region, influences the aspirations and efforts of the people, their choices regarding profession, training and education. Workers are reared who learn the practices of industrial labour, understand the necessity and the modes of organization. Industry trains and educates a whole set of new leaders, experts, technicians, business administrators and accountants who stand firm not only in industry but also in other fields of economic and social life.

It is an important fact in this respect that the technological standard is represented not only by the commodities manufactured at home at a given date but also by the imported equipment and technology with which the domestic manpower starts to work. Contemporary technology can, of course, not be introduced in every plant and enterprise but it does influence the way of thinking and norms of action also of those working in old-fashioned plants or in the traditional sectors of economy.

Every industrial investment should be examined for its impact on the economic environment, that is, on the consumers who will buy the products of the new plant, on its suppliers of raw materials, on the transport net, on agriculture, retail trade and communal services that would supply its workers with food, industrial articles and services.

Industry, as the most dynamic factor of economic growth, promotes the development of the "economic" way of thinking, i.e. one often opposed to the traditional norms, and underlying every kind of economic development. The community must set and realize economic targets if it wants to improve its own life. No results can be achieved unless the available economic resources are rationally utilized, unless adequate returns are obtained by proper investment of means. The profits of the state-owned and co-operative enterprises in the developing countries serve the interests of the society and not the enrichment of individuals; thus, the tendency to maximize them is morally justified.

The new industry plays a decisive role in the propagation and consolidation of this rational way of thinking and norms of action.

## National Educational and Science Policy in Economic Growth

The liquidation of the shortage in qualified manpower is a decisive condition of economic growth. At present this shortage is not only the outcome and criterion of economic backwardness but also one of the obstacles to, and the narrowest bottleneck of, future development. Fast economic expansion definitely requires the establishment of an adequate proportion between the investments made in the material assets and in the assets of human skill and knowledge. There is a very close interaction between material and intellectual assets since the efficiency of the former depends mainly on the intellectual level and organizational abilities of the people operating them, since the efficiency of the material assets is determined by the selection of investment projects, their implementation and the extent of utilization of the capacities created.

Science is becoming in our days increasingly important for economic growth and development since, beyond its endeavours aimed at inquiring into the laws of nature and society, it has become the main driving force of technical development. In addition to this, owing to the dynamic advancement of research methods, the scientists of our age also contribute to the improvement of the strategy of human action. That is why they have an important say in the preparation of the economic, cultural and political decisions to be taken by the governments, as well as in the development of the most expedient methods of their implementation.

According to the computations of Theodor W. Schultz,<sup>1</sup> the rate of increase of the educational expenses in the United States between 1900 and 1956 was 3.5 times higher than that of the growth of either the personal incomes or the gross fixed capital. If we regard educational expenditure as an investment in intellectual assets, this kind of investment developed at a rate exceeding 3.5-fold the investments materialized in gross fixed capital.

F. Harbison and Ch.A. Myers refer to the computations of R.M. Solow and H. Correa relating to the role of some economic factors in the growth of production achieved in economic history. Both computations embrace the period between 1909 and 1949 of the economic history of the United States. The findings

<sup>1</sup> T.W. Schultz's figures are taken from F. Harbison and Ch. A. Myers, *op. cit.* (p. 46). This important work of the outstanding authors will be quoted on several occasions in this chapter.

of the two authors show certain differences, yet there is a similarity between their computations as regards the very important conclusion that the overwhelming majority of production expansion (87·5 per cent according to R. Solow, and 69 per cent according to H. Correa) depended on factors associated with education such as technological progress, improved professional knowledge of the workers and better sanitary conditions.

It seems, therefore, justified to examine the questions of education from the angle of economic growth. This is, of course, not the only possible approach since every human society has also meta-economic ambitions. The right to education and intellectual development is one of the unalienable rights of every human being who wants to develop his or her abilities and talents. It would, however, be a mistake to approach the problems solely from the side of human rights and freedoms. Economic, cultural and political advancement is the result of the collective efforts of a society. Economic growth creates new instruments and new needs. The improvement of means permits the enhancement of education but, in order to maintain a steady course of development, steps should be taken to meet the new demands. The ambitions of the individuals should therefore be dovetailed with the needs of the society, and this, except for extreme cases, is by far not impossible. In practice, then, there is no conflict between satisfying the needs of the individual (cf. the rights of the human personality) and the meeting of the social demand. Anyhow, it is only under the conditions of economic growth that hundreds of millions of people can enforce their rights to cultural advancement.

### Correlations and Interactions between Economic Growth and Education

On analysing the relationship between economic growth and education we find the following interactions and reactions to prevail:

- a) the rate and success of economic growth will determine the order of magnitude of the material resources that can be assigned to education;
- b) the needs elicited by economic growth determine the demand for highly qualified people and the nature of their qualification;
- c) educational development has an impact not only on the quantitative and qualitative composition of the national labour-power but also on its age, the time and the periodicity of its mass penetration into the labour market;
- d) the appearance of highly qualified labour in production and in economy gives a new impetus to economic growth;
- e) the economic growth accelerated by the presence of new qualified labour creates new needs and, at the same time, ensures new resources for meeting them.

Thus, educational policy should become an integral part of the conception of economic growth. And this is why it is necessary to study the questions of the national educational policy as a factor influencing economic growth.



The grave shortage in qualified manpower in the developing countries is combined with an oversupply in unskilled labour. The problem of qualified labour can best be approached by examining the state of development of the educational system. But, before embarking on the subject, let us make it clear that the term "qualified labour" is not always used in the same sense: some include skilled labour into this concept. In the developing countries the improvement of professional skill is a question of professional training rather than of education; and this is likely to hold for a long time to come. After compulsory schooling, a few years' practice will train very good skilled workers. But, for the purpose of our considerations, we wish to set the limit of qualification higher because, with respect to economic growth, we attribute the greatest significance to secondary and higher education. This type of education is expected to produce leaders for agricultural and industrial enterprises, physicians, technicians, journalists, leaders for the armed forces, as well as teachers and scientific research workers.

The level of primary schooling is, of course, an extremely important factor since, the same work can be performed with a greater efficiency by those having finished the primary school than by the illiterate. (For the corroboration of this statement, let me refer to the investigations of the State Planning Office of the Soviet Union undertaken in 1924.)

Relying on the above considerations, our dynamic approach obliges us to pay the greatest attention to secondary and higher education. We do not mean to say that primary education can be neglected; evidently secondary and higher education cannot be developed without it. We shall come back later to the questions of primary education.

### Aggregate Index Reflecting the Situation in Qualified Labour

Harbison and Myers have established their composite index in this spirit, an index showing the present level and the future expectancies of a country as regards qualified labour. Their composite index is obtained by adding the ratio of the secondary school pupils as a percentage of the corresponding age group (14-18 years) to five times the ratio of the university students within the corresponding age group (19-23 years).

Relying on the order of magnitude of this aggregate index, Harbison and Myers assign the countries of the world into four groups (or levels), as shown in the Table on p. 300.

The close connection between education and economic advancement is shown by the per capita national income within the four groups:

in Group I	\$ 84
in Group II	\$ 182
in Group III	\$ 380
in Group IV	\$ 1,100

*Quantitative Indicators of Human Resource Development*

Countries grouped by levels of human resource  
development according to composite index

Level I (underdeveloped)	Level III (semi-advanced)
0.3 Niger	33.0 Mexico
0.75 Ethiopia	35.1 Thailand
1.2 Nyasaland	35.2 India
1.55 Somalia	35.5 Cuba
1.9 Afghanistan	39.6 Spain
1.9 Saudi Arabia	40.0 South Africa
2.2 Tanganyika	40.1 Egypt
2.6 Ivory Coast	40.8 Portugal
2.95 Northern Rhodesia	47.3 Costa Rica
3.55 Congo	47.7 Venezuela
4.1 Liberia	48.5 Greece
4.75 Kenya	51.2 Chile
4.95 Nigeria	55.0 South Korea
5.3 Haiti	56.8 Italy
5.45 Senegal	69.8 Uruguay
5.45 Uganda	73.8 Norway
7.55 Sudan	
Level II (partially developed)	Level IV (advanced)
10.7 Guatemala	77.1 Denmark
10.7 Indonesia	79.2 Sweden
10.85 Libya	82.0 Argentina
14.2 Burma	84.9 Israel
14.5 Dominican Republic	85.8 West Germany
14.8 Bolivia	88.7 Finland
15.25 Tunisia	101.6 Canada
17.3 Iran	107.8 France
20.9 Brazil	111.4 Japan
22.6 Columbia	121.6 United Kingdom
22.7 Paraguay	123.6 Belgium
23.15 Ghana	133.7 Netherlands
23.65 Malaya	137.7 Australia
24.3 Lebanon	147.3 New Zealand
24.4 Ecuador	261.3 United States
25.2 Pakistan	
26.8 Jamaica	
27.2 Turkey	
30.2 Peru	
31.2 Iraq	

The average indicator of the four groups reflects the distances between the categories:

in Group I	3
in Group II	21
in Group III	50
in Group IV	115

It is interesting to note the different trends in the two factors of the indicator.

The ratio of those attending middle school to the whole of the respective age groups is,

in Group I	2.7
in Group II	12.0
in Group III	27.0
in Group IV	59.0

The ratio of attendance at institutions of higher education (universities and colleges) yields the following figures:

in Group I	0.15
in Group II	1.60
in Group III	5.00
in Group IV	11.00

The composite indicator is, of course, only one of the many conceivable criteria. It does not express the ratio of those attending primary education, which would show substantially smaller differences and also would reflect more accurately the intentions and endeavours of the governments in the developing countries.

The ratio of those attending primary education to the corresponding age group is the following:

in Group I	22 per cent
in Group II	42 per cent
in Group III	62 per cent
in Group IV	73 per cent

The authors quoted above have also examined to what extent the countries belonging to the various groups are provided with highly qualified manpower in the intellectual professions most important for the development of social and economic life. This is the ratio of the engineers and of graduates in natural sciences to ten thousand of the total population:

in Group I	0.6
in Group II	3.0
in Group III	25.0
in Group IV	42.0

The ratio of physicians and dentists to ten thousand inhabitants is

in Group I	0.5
in Group II	3.0
in Group III	8.0
in Group IV	15.0

Obviously, many more data are needed for an analysis and appraisal of the situation concerning qualified labour. With the spread of the obligation to supply information for statistical purposes, it gradually becomes possible to compile such data. In addition to those above, the following ratios to ten thousand inhabitants can be regarded as important:

- a) the number of teachers and professors,
- b) the ratio of those attending primary schools to the number of the corresponding age group,
- c) the ratio of those attending secondary education to the number of the corresponding age group,
- d) the ratio of the university and college students to the number of the corresponding age group.

In this last instance the distribution of the students according to disciplines is also essential.

### Starting Points of the National Educational Plan

The national plan of education should rely on the recognition that

- a) the absolute shortage in qualified manpower is very great, although it varies by categories,
- b) there is not only an absolute shortage in qualified labour but also a relative one because the ratio of those graduated in technical and natural sciences to the total of qualified people is rather low. To show the significance of this problem, let me quote a few data:

*The Number and Distribution of University Students per One Million Inhabitants*

	All faculties	Natural science and technology	Ratio of the latter students to total
Africa	720	180	19.5 per cent
Asia	2,740	445	16.2 per cent
Latin America	1,990	550	27.1 per cent
Western Europe	3,500	1,170	33.4 per cent

With respect to studies in agriculture, so important for the future, the situation is even worse. Students in agriculture constitute 5.4 per cent of the total in Africa,

7 per cent in Latin America and 4 per cent in Asia (without India where this figure is 1.1 per cent).

The number of students in agriculture to one million inhabitants is 50 in Africa, 55 in Latin America, 66 in Asia and 24 in India.<sup>2</sup>

The absolute and relative shortage in qualified experts is one of the major obstacles to starting and accelerating economic growth. The making of proper economic decisions requires a large amount of information, a deep knowledge of the economic processes and a many-sided survey of the possible consequences of the different variants. Information along these lines can only be compiled by a large number of highly qualified and excellent experts.

The lack of qualified labour may make it difficult efficiently to utilize foreign aid. Namely, one has to decide about the shape and the allocation of the foreign aid, in compliance with the tendencies in the domestic economy. The lack of qualified manpower should also be taken into account when implementing the decisions taken by economic policy. Namely, the variants requiring the co-operation of too many experts are the most difficult to realize. Implementation of even the simplest decisions may differ from what was intended by the central government. (This problem will be discussed in detail in Part Three.) Finally, the lack of highly qualified experts may cause tensions in production. It should be realized that the average standard of the leadership—in spite of the enthusiastic efforts of some outstanding experts—cannot be appropriate, and the adaptation to the new conditions necessarily involves high tensions.

These difficulties are enhanced by the acceleration of economic growth because education, as has earlier been pointed out, is a long-term factor, its rate of development being slower than that of the other growth factors. Hence, in the early period of growth, the demand for qualified manpower exceeds the output from the institutions of secondary and higher education. It should be remembered that the number of those admissible to higher education is determined by the present organization of, and the places in, the institutes of secondary and higher education, not to speak of the fact that in most countries the buildings, premises, equipment and teaching staff for an increased number are not available.

It should also be kept in mind that, in our days, the demand for qualified labour is rapidly increasing, being by now three times that of the demand for labour in general. And the demand for technical personnel is even greater.

In view of the growing demand and the grave shortage in qualified manpower we come to the conclusion that, as regards the increase of intellectual energies, a particularly grave contradiction has arisen between the requirements and the available means.

The lack of qualified manpower is not only an economic problem but also a serious social and political concern. The creation of a national intelligentsia is one of the main conditions of building up a society and an economy. The erudition

<sup>2</sup> A. Curle: *Educational Strategy for Developing Societies*. Tavistock Publications, London 1963.

and professional structure, the political views and attitudes of the national intelligentsia are heavily influenced by the years spent in education. Their devotedness, readiness to sacrifice, their intellectual horizon and relation to the other layers of the nation depend on the national system of education.

The significance of these problems is enhanced by the fact that the national intelligentsia play a decisive role in the political movements of the independent countries, just as they were the leaders and organizers of the anticolonialist struggle.

It is thus clear that for economic, social and political development an adequate level of education is indispensable.

### Question of Priorities in Education

When evolving any development conception, it is necessary to estimate the order of magnitude and growth rate of the needs arising simultaneously, and to collate them with the scarce material and intellectual sources available. The scarcity of the material sources derives from the limited possibilities of accumulation and from the low income of the state budget. The reasons and manifestations of this phenomenon have been discussed earlier. It should also be kept in mind that the investments in education concur with those aimed at the improvement of material production. The recurring expenditures of education also constitute a great problem. As a rule 60 to 65 per cent of the educational expenses are wages and salaries. In a poor country the state incomes can obviously not rise as fast as educational expenditure tends to rise.

The available intellectual capacities are also scarce, both for the present and for the future. The growing demand for education on all levels requires a large number of teachers. Yet graduates from universities or institutions of higher education are needed also in industry, agriculture, state administration, economic life and scientific research. Under such conditions the number of university or college graduates eligible for the teaching profession is obviously very limited. Their ratio is usually put at 25 per cent.

It follows from the limited amount of the available material and intellectual energies that the policy of national education must establish certain priorities. When doing so, the educational level achieved and the purposes of economic growth should be taken into account. These priorities will differ from country to country, depending on the composite indicator.

We shall now examine the criteria of the correct choice of educational priorities.

In countries belonging to Group I, the priorities expressed in the form of a national educational plan should be established with due regard to the following factors:

- a) There is a general shortage in qualified manpower and this should be taken into consideration on all levels of state, economic and cultural life.
- b) The ratio of employed labour is relatively low, and 30 to 40 per cent of them are state-employed (civil servants, teachers).

c) The ratio of foreigners staying in the country ever since the period of colonization to the total number of qualified manpower is relatively high. (According to Harbison<sup>3</sup> half of the qualified labour in Africa are foreigners.)

d) The level of school attendance in primary education is rather low (the lowest value being 5, the highest 40 per cent, the average around 20 per cent) and drop-outs are high. In Haiti, for instance, only 17 per cent of those admitted to the first grade attended the second grade, in Uganda only 32 per cent of the first-grade pupils attained the sixth grade in 1957.

e) The ratio of pupils attending secondary education to the total of their age group is 2.7 per cent on the average, with 1 per cent, as the lower and 6 per cent as the upper limit. In a number of countries secondary education is concentrated in the hands of the churches or private persons. In many schools tuition fees are still paid, and the costs of boarding are high. Only the children of the well-to-do can afford secondary education. Those graduating from secondary school find relatively good opportunities of employment or of continuing their education.

f) Higher education can be obtained either within the country or abroad. The domestic universities are unable to secure training for every profession on an adequate level, whereas the young people educated abroad fail to acquaint themselves with the national problems of their country, lose connection with the conditions at home and often do not come back. And most of those returning home, prefer jobs in the towns or in state administration.

g) The extension training of the manpower already in employment—an important method of raising professional knowledge—is in an initial stage, except for the oil industry of some countries.

In such circumstances, any consistent plan of national education must realize that the replacement of foreign by domestic labour quantitatively increases the demand for qualified manpower and also accelerates it. It is obvious that it will be necessary for a long time to employ foreign labour on a contractual basis or on the basis of scientific and technological co-operation. It is, however, impermissible that citizens of foreign countries should hold key positions in domestic administration, in the economic life or in the army.

It is important to select the educational tasks that should be given priority, with due regard to the existing circumstances and to the intentions of accelerating economic growth. Most of the material and intellectual energies should be concentrated on these selected tasks. In such a selection many contradictory requirements must be taken into account.

The requirements of democratizing the country and the creation of a general national cultural basis would speak in favour of extending primary education as far as possible. Such a priority would have favourable results in many fields of economic life. It would presumably accelerate the development of agricultural production, especially if primary education were cleverly linked up with the propagation of fundamental agricultural knowledge. It would also yield better un-

<sup>3</sup> F. Harbison and Ch. A. Myers, *op. cit.* (p. 46).

skilled labour for industry and other economic branches, would indirectly promote the gradual reduction of the population increase. It would, namely, eliminate the slight advantages of having more children since in the case of a wide-scale compulsory primary education the families would have to spend more on their children and these could only be put to work at a later age.

Nevertheless the concentration of the educational activities on primary education fails to solve exactly the kind of problems deriving from the acceleration of economic growth. The overall introduction or the wide-scale propagation of primary education requires great material and intellectual forces to be allotted to purposes which will produce direct economic advantages only some years later. Until then, the supply of qualified manpower necessary for economic growth will be restricted. Thus the growth rate would slow down for a certain time. Moreover, secondary and higher education could not be granted sufficient investments, and the number of primary-school teachers would have to be increased at a rate that would absorb most of the disposable young people having secondary education. Thus, the supply of state administration and of the economy with qualified manpower will suffer.

### Secondary School as the Narrowest Bottleneck

Hence, priority in the countries belonging to Group I should be given to secondary school education. This was the view adopted also by the Conference in Addis Ababa of the ministers of education of the African countries. In our days this seems to be the narrowest bottleneck, and it has a limiting effect both quantitatively and qualitatively on the achievements that could be obtained in higher education. According to Harbison's computations,<sup>4</sup> the countries of Group I should raise the number of their secondary-school pupils five-fold in order to attain the present level of the countries of Group II. In the opinion of education experts, this task—even under favourable conditions—needs fifteen years to be solved. When talking of secondary education, or middle schools, we mean a school type in which mathematics and the natural sciences are given their due place. When determining the type of secondary school the main aim should be to render a high number of graduates fit for studies in universities and colleges. Secondary education in these countries is not meant to turn out middle cadres (technicians, nurses, stenographers, office staff, etc.). For this purpose it seems to be more expedient if after finishing the primary school, those pupils who are not scheduled for secondary and, later on, for higher education, are trained in practical courses lasting two or three years.

In higher education the share of faculties of technology and natural sciences should be increased. Many education experts and economists agree that the number of students on these faculties should attain 50 to 60 per cent of the total number of

<sup>4</sup> F. Harbison and Ch.A. Myers, *op. cit.* (p. 46).



university students. The rest (40 to 50 per cent) are to be distributed more or less equally between the teaching profession and the faculties of social sciences and humanities.

### Problems Associated with the Training Abroad of Qualified Manpower

At present many young people must be sent abroad for the full period of their studies. But such a solution of higher education involves the risk that the new intelligentsia will not be adequately acquainted with the conditions at home and lose contact with the domestic problems. It is, therefore, expedient to train and educate the national intelligentsia at home or in neighbouring countries.

This is the only way to train a national intelligentsia which

- is able to rely on the domestic endowments and conditions in the course of their practical and scientific activities,
- is loyal to the whole people of the country and efficiently helpful in the difficult period of transformation,
- is governed by a moral obligation to the country and the people, and undertakes to live in more difficult conditions of life,
- displays a relative unity in their attitudes to the major questions of national and social development.

In the economically weak small countries, the building of institutions of higher education is extremely costly. In the industrially advanced countries there is one university to 1.5 to 2 million inhabitants. In the developing countries where the rate of university students to the total population is substantially lower, even one university per two million inhabitants would send the costs per one student soaring. It is therefore expedient for small neighbouring countries, where otherwise favourable conditions prevail, to achieve a wide co-operation in the field of establishing institutions of higher education and in their specialization.

The specialization of the pupils should be planned with due regard to the actual needs of economic life and to the supply in experts expected to develop in the decades to come. It is not expedient in this respect either to follow mechanically the system of narrow specialization of the European and American universities which relies on a relative abundance in experts. In the developing countries there will be a shortage in experts for long decades, that is, qualified manpower may not rely on a wide circle of "associated experts". On the contrary, all of them will be left to themselves in a certain sense and will need a multilateral knowledge, inventiveness and a capacity for self-adaptation. On the other hand, the tasks in economic life do not yet appear in all too differentiated forms since at the beginning relatively simple industries and economic activities will be created and conducted. In the case of narrow specialization it often occurs even in the advanced countries that some of the qualified manpower are employed in branches other than their original profession. This danger is still more imminent in the developing countries

where the demand for qualified manpower and the specialization of education rely on assumptions connected with economic growth. If the expectations fail and the growth rate becomes lower, then the pattern of investments must be modified, the implementation of certain establishments postponed or even cancelled, and often even structural changes introduced. These phenomena can hardly be avoided, but then, in the case of narrow specialization, the qualified manpower has to be employed in jobs alien to their qualification. This invariably results in discontent and political tension.

Let us mention here in parentheses that in the case of studies abroad, what we disapprove of is only the spending of the full period of studies on another continent, whereas we consider it favourable for the students to spend one year abroad or to go to industrial countries for postgraduate studies.

The universities of the developing countries, must, obviously, adopt elastic methods complying with the requirements of national life. All universities must grant also "extra-mural" training and should start, in due time, correspondence courses. The universities play an important part in the formulation of conceptions for the development of the economy and in the solution of their scientific problems.

### Problems of Primary Education

Having given priority to secondary-school studies and stressed the importance of the problems of higher education, let us come back briefly to the questions of primary education. Without a well-founded primary education there is, of course, no appropriate secondary schooling. On the other hand, priority given to secondary education will increase—temporarily—the differences in the cultural level within society, which is not a sound phenomenon. Great differences in the cultural level are obstacles to the productive development of a healthy national public spirit. The members of the national intelligentsia, especially if trained abroad, feel out of place since their good initiatives come up against an incompetent medium destined to implement them. The working masses, on the other hand, find the intellectuals haughty and intolerant. This creates tensions and even mutual misgivings. One of the parties wishes to assert its power and right to command and has the feeling that its fair words are not understood, while the other party persists in its opinions, recurring to the usual methods of passive resistance.

Intelligence and wisdom can, of course, mitigate the potentially existing dangers. The national intelligentsia must, obviously, transform and understand the people and public life. Fanatism, haughtiness and the display of power are of no avail since the people can be given instructions only within a narrow circle of things and processes. True results will be obtained when, having understood the problems of economic growth, the people will act correctly by themselves, that is, without central instructions.

Without going now deeper into this problem we wish to point out that, if only for the prevention of exaggerated differences in the cultural standards, it is expedient

and necessary to develop primary education, including adult education. It is of particular importance to teach the three R's and the fundamentals of agricultural knowledge. To this end—especially in adult education—even such persons can be used who have no qualification to back up their knowledge.

### Education Priorities in "Partly Advanced" Countries

In Group II, unlike in Group I and very much like in Group III countries of widely differing social structure and dynamics can be found. Some of these countries are characterized by extremities and a backward social structure (feudalism and land-renting system). The backward social structure hampers the laying of the foundations of a homogeneous national culture, whereas economic life fails to produce a sufficient constraint inducing the creation thereof. Yet this group also contains countries having already achieved significant results in education in the course of about one decade. To the first sub-group such countries may be assigned as Brazil, Columbia and Guatemala, and to the second, such countries as Ghana. In the countries of the first sub-group certain branches of higher education, for instance jurisprudence and humanities, look back on long traditions, and the replacement of foreigners as well as the filling up of ministerial jobs raise no serious problems. In the countries of the second sub-group, on the other hand, the intensive development of university education was started only ten to fifteen years ago, and thus the forms are more contemporary.

In the states belonging to Group II, the general and compulsory primary education has not yet been introduced but, with a favourable social and economic development, this may be achieved within a reasonable time.

The number of drop-outs is especially high in the countries of Latin America; only 25 per cent of those registered in the first grade of the primary school finish the fourth. Within this Latin-American average the situation is more favourable in Columbia (18 per cent) and in Guatemala (19 per cent).<sup>5</sup>

In East and West Nigeria attempts have been made to introduce six years of primary schooling, but this decision was found to consume an extremely high share (66 per cent) of the sum total allotted for educational expenses, preventing thereby the proper development of secondary and higher education, and also the standards of the teachers employed failed to come up to the mark.

In the countries of Group II, again secondary schooling gives the most trouble. The reasons are different. In some countries the number of children having finished the primary school is so low that the secondary schools do not receive enough applicants to undertake a proper selection (the dropping out from primary schools is chiefly due to the economic situation; the children of the well-to-do

<sup>5</sup> *Investment in Education*. Federal Ministry of Education, Nigeria (Lagos) 1960 (Ashby Report).

finish the school at any rate). In other countries too much of the scarce means has been assigned to primary schooling, and less than enough is left over for the secondary schools.

In these countries the average attendance of the secondary school is 12·4 per cent of the corresponding age group. The majority of the pupils go to general grammar schools. In these schools some countries require high tuition fees, but in some politically progressive countries schooling is free of charge. The specialized secondary schools are in general poorly supplied with teachers and training colleges are not attended by a sufficient number of students.

In the field of higher education—especially in countries with a backward social structure—the situation is relatively better than in primary and secondary education. Yet the distribution of the students according to faculties is outdated, with most of the students learning jurisprudence or humanities. The capacity and equipment of the faculties of natural sciences and technology do not meet contemporary requirements, which is largely due to the higher costs of such facilities. On the other hand, the students of jurisprudence and humanities enjoy higher social esteem. In many countries resources available for university education are split up among too many branches.

On the other hand, the level of university education in Ghana, the eastern and northern provinces of Nigeria or in Jamaica is rather good, but the expenses are high, owing to the relatively low number of students. These countries make intensive efforts to develop education in technical and natural sciences.

All countries belonging to Group II send a large number of university students abroad. We have already expounded our opinion in this respect.

The training of manpower in these countries will depend on two major sets of problems in the coming decades:

a) Will they succeed in doubling the national income in about every 12 to 15 years?

b) Will the social reforms be implemented permitting to lay new foundations for the national education system?

(The cases in point are, for instance, a substantial reduction of the dropping out from the primary schools, the introduction of cost-free secondary education, better social and financial appreciation of education in technical and natural sciences.)

If, simultaneously with the implementation of the social reforms, the national income can be doubled within 12 to 15 years then, in about the next fifteen years:

a) the attendance in primary schools can be raised by about 50 per cent,

b) the attendance in secondary schools can be doubled,

c) higher education can be trebled.

The execution of such a programme obviously requires significant foreign (international) aid. Some 3·5 to 4·5 per cent of the national income will have to be assigned to education as against the present 2 per cent. (In other words, the investments assigned to intellectual assets should grow more rapidly than those resting on fixed capital. In the developing countries, however, the difference will be

smaller than in the advanced countries since it is imperative to insist on the productive investments.)

Among the immediate educational tasks the reform of secondary education is the most important. Those who finish the primary school with outstanding marks should be granted secondary schooling free of charge. Secondary schooling, on the other hand, should not only prepare for university studies but also find contact with the different forms of professional training.

The methods of primary education should be brought up to date so as to achieve the doubling of the attendance without detriment to the qualitative level. Also the social conditions leading to the high number of drop-outs must be changed.

In higher education the rate of students on faculties of technical and natural sciences to the total should be increased gradually up to 50 or 60 per cent, which naturally involves a substantial rise in costs. (According to reliable computations, the costs of the education of an engineer, a physicist or a physician are about three times as high as those necessary for the education of a jurist or a student in the humanities.)

The income and social esteem of engineers and scientists should be enhanced. To achieve this, parallel to the progress of economic growth, also the inherited public thinking which despises the professions connected with economic activity should be transformed.

But even more needed than the experts in technology and natural sciences, having a higher education, are the technicians.

It is important to secure the further education of manpower employed in industry or in any other fields of economic life. In this manner the shortage in technical personnel can also be reduced.

According to Harbison, about 40 per cent of the educational expenses should be allotted to secondary schooling and 20 to 25 per cent to higher education. Hence, 35 to 40 per cent remain for primary schooling.

The modernization of the composition of the educated layers is of particular importance in these countries.

Such sciences as linguistics, history, sociology and economics, will obviously continue to play a very important part in the development of culture and in the life of society. But the research and education problems of these disciplines should be linked up more closely with the new requirements engendered by economic growth. (For instance, language reforms, the analysis of the traditional social formations with up-to-date methods, the revelation of the national past, the working out of planning methods, etc.).

The state apparatus must not be based exclusively on jurists. Economists, engineers, physicians and agriculturists should also be included.

The changes in the composition of the educated layers promotes the evolution of the public thinking necessary for accelerating economic growth. An obsolete structure of these layers results in a chronic political tension with educated people claiming rights and privileges but not being able efficiently to participate in the transformation of the economy.

## Education Policy in "Partly Advanced" Countries

In the case of the countries belonging to Group III (with composite indexes between 33 and 73·8) it should, first of all, be pointed out that the system of classification seems to be rather controversial. Harbison assigns to this category Thailand and Costa Rica, as well as Italy and Norway. If a system of classification leads to a logically untenable conclusion, the criteria underlying the classification must be revised. Thus, it would have been most expedient to include the index of primary education into the composite index. This would have revealed much clearer the actual differences between the countries placed at the lower end of the scale and those showing the highest values. When analysing the state of education and the development requirements of the countries in Group III, we have only the countries figuring in the enumeration in mind. This follows logically from the choice of our subject-matter and also from our opinion that new criteria of classification categories should be applied for Group III.

In the countries of this category a wide scale of qualified manpower is present. Yet a certain amount of technical aid is still necessary, particularly for expanding the studies in technical and natural sciences as well as in economics.

While stressing these circumstances the following should be pointed out:

a) In many countries of this category there is an oversupply of manpower, consisting of the unemployed (ten million in India, for instance), of those partially employed or latently unemployed. The latter assumes especially large proportions in agriculture, for instance, in the United Arab Republic.

b) The composition of qualified labour does not correspond to the requirements of an up-to-date economy. Those studying social sciences constitute a comparatively large number of the students as against those studying technical and natural sciences.

c) From the relative underdevelopment (moderate advancement) of economic life it follows that the majority of highly qualified manpower are not trained as well as in the countries where the general and the economic conditions are more advanced. (In other words, this means that there are fewer inventors, innovators, research workers and similar categories.)

d) Certain countries have not yet become capable of introducing or enforcing compulsory primary education. In India 24 per cent of the relevant age group attend primary schools, in the UAR 77 per cent. The number of the drop-outs is high; in India only 35 per cent of the first-grade pupils reach the fifth grade. The major part of the teaching staff in primary schools have no professional qualification, although having undergone a certain kind of preparatory training.

Secondary education in these countries is of a conservative character, i.e. qualifies chiefly for university studies.

This orientation of the middle school is the product of inherited socio-economic conditions and is in accordance with the traditional national public thinking and system of values. In the earlier days relatively few pupils registered in secondary schools, but almost all students graduating from middle school went to universities

provided they could afford it. Today the financial circumstances have changed, yet public thinking influenced by the educated layers does not keep pace with the new conditions. Advancing economic life needs a growing number of middle grade specialists, such as technicians, agronomists, trade and bank employees, nurses, stenographers, etc.. The present system of formal education fails to take into account these needs.

Higher education is in a state of transformation, and engineers, physicians and economists enjoy a growing social esteem. But beside this, there is an over-production in graduates of some traditional professions (theologists, jurists, etc.) resulting in a kind of intellectual unemployment.

Hence the developing countries of Group III are faced with the following tasks in the field of education for the acceleration of economic development:

a) Primary education should, by all means, be extended and gradually made universal. Namely, the number of secondary-school graduates (6 to 8 per cent of the corresponding age group) does not permit a through selection of the would-be university students. In addition, the absence of the majority or a great part of school-age youth from primary education hampers the diffusion of agricultural and sanitary knowledge and creates deep gulfs in the cultural standards of the populations. Amidst a very backward rural population the trained functionaries will enjoy privileges which are not in keeping with the endeavours of the government and the political forces. Not only the obsolete social conditions can create substantial cultural disparities through the cultural monopoly of the leading classes but, vice versa, the great discrepancies in cultural standards may bring about sharp social differences.

b) Secondary schooling should be open to all talented young people who have finished their primary studies with good marks, even though their financial situation would not permit them to spend further years learning. The weight of mathematics and natural sciences should be increased in the curricula.

c) Professional secondary schools, complying with the requirements of economic life, should be organized gradually. A too wide specialization and very differentiated school types are, naturally, not yet necessary since the needs of economic life cannot be foreseen with an absolute accuracy. Yet it is necessary to build up some kind of secondary training adapted to the demands of practical life rather than to the requirements of admission to universities.

d) Part of the already employed manpower should be trained at extension courses, in order to attain a qualification enabling them to occupy posts one or two degrees higher than what they filled at the beginning of the course.

e) In higher education priority should be given to technology and natural sciences.

f) The system of material incentives should be established so as to secure appropriate remuneration of experts and teachers vitally important for economic growth.

Within the national education programme the largest part of the financial means (about 35 to 45 per cent) should be assigned to secondary schooling, not much

less (30 to 40 per cent), to primary schooling, and the rest (15 to 25 per cent) to higher education.

When planning the financial means to be allotted to higher education, it should be kept in mind that, as already mentioned, the training of a university student of technology or natural sciences costs three times that of the student in social sciences. On the other hand, much can be saved if the universities and the pertinent institutions are equipped rationally and unostentatiously. Beside the important possibilities of saving, another aspect to be remembered is that the living conditions of the university students should not elicit aversion among the population or be at variance with their later working conditions. Obviously, the students, that is, the would-be experts, when trained under living conditions exceptionally favourable with respect to the general standard of living, will be reluctant to take up jobs in the country, especially in rural districts or connected with exacting working conditions. But the countries cannot dispense with the enthusiasm and devotion of a national intelligentsia, ready to accept modest standards of living. In the rich western societies the principle of material interest may—under normal conditions—constitute a sufficient cohesive force and may even govern the flow and distribution of manpower. Yet the organization of labour distribution governed by this principle would result in catastrophic consequences in the developing countries. This would leave the rural population in poverty and backwardness, and rear privileged public functionaries neglecting the people. In such an atmosphere both democratic development and economic growth become impossible. Hence in the developing countries a great importance should be attributed to national and patriotic education on every level, and the living conditions of the university students should be adapted to the general situation. To be a true nation, every country must have its national intelligentsia; and in a democratic society the national feeling of the educated people must rely upon enthusiasm, zeal and devotion and not upon privileges.

Yet I wish to stress it again that, besides referring to national loyalty, the material incentives cannot be altogether neglected. Otherwise the young people are not willing to continue their studies for a longer time, nor will their parents be inclined to renounce their childrens' opportunities to earn money for the sake of their future.

### Necessity of a Long-range Educational Conception

The educational plan, including priorities and funds, should obviously be drafted for a longer period (15 to 25 years). This long-term conception should then be coordinated with the general strategy of economic growth with respect to both aims and funds. The considerations of, and the decisions to be taken in, questions of national education indeed require vast perspectives for several reasons:

a) Education belongs to the long-term factors of economic growth, i.e. the changes induced by it will affect society only after a longer period of time.



b) When developing a uniform conception of economic growth, endeavours should be made to synchronize the factors changing at different speeds; i.e. the questions of education, for instance, should be decided upon before deciding on investment problems.

c) When planning education expenses, their long-term effects should be foreseen since the costs involved by the introduction or expansion of some form of education will grow from year to year over a long period; hence their rise—depending on the nature and dimensions of the reform—should be predicted well in advance.

d) Long-term concepts should govern also any decision taken in matters of training the educational personnel since the full training of teachers for secondary schools requires 16 to 17 years. In the developing countries no reserves are available in this respect because the number of pupils in the secondary schools is a given value.

Hence the conditions necessary for the implementation of the economic conception must be created in the course of development (in motion) with regard to both the material means created and limited by economic growth and the building up of the internal system of education.

This explains why the planning of education is a far more difficult and complicated problem than that planning concerned merely with the supply and demand of manpower. The conceptions of planning national education and of securing qualified manpower can proceed from two angles:

a) from the internal structure of education and from the effects of the educational system established upon the rest of society, including economic life;

b) from the requirements of economic life, that is, by establishing and structurally co-ordinating the quantitative relationship between economic growth and the development of education.

The first starting point is preferred especially by educational experts emphasizing the autonomous character of education, i.e. its independence from society and economy and its pertinence to the individual. Beckerman and Parnes<sup>6</sup> refer to this method as the "socially objective method". They rely on the statement that education serves not merely economic purposes, since highly cultured manpower automatically promotes the development of the economy. It is therefore not necessary to outline the requirements in advance on the basis of initial hypotheses (e.g., of the conception regarding the nature of economic growth). It is enough to find out the shortcomings—with respect to the present social conditions—of the existing educational system and to point out the tasks of eliminating them, naturally with due regard to the expected population growth. This will then result in an educational system correct in itself, yielding as many highly qualified experts as are necessary for the acceleration of economic growth.

<sup>6</sup> W. Beckerman: *Methodology for Projection of Educational Requirements*. OECD, Paris, March 1962. — H. S. Parnes: *An Occupational Classification System for the Mediterranean Project*. OECD, Paris, April 1962.

In our opinion this method is not suitable for underlying the planning of education because,

- it disregards the basic economic relationships, suggesting that education has an end in itself,
- it disregards the structural changes elicited by economic growth in the demand for qualified labour,
- it disregards the fact that the financial means necessary for the expansion of education are secured by the budget as a function of the progress in economic growth.

### **The Conception of National Education Should Be Built upon the Requirements of Economic Growth**

It seems therefore more expedient to rely for the planning of national education on the expected trends in the processes started by economic growth. In the course of planning

- a) the expected trend in the demand for qualified manpower should be established for a medium or long period,
- b) it should be found out how far the present organization and system of education meet these demands,
- c) the possibilities of training manpower while employed and the role of the institutions of adult education in meeting these demands should be determined,
- d) it is important to determine the material, educational and social conditions under which these demands can be met, including the annually growing amount of financial means, the material, organizational and personal conditions necessary for the training of teachers, as well as the transformation of the educational system,
- e) the targets set for meeting the demands and the available scarce resources (material, personal and organizational) should be collated and the priorities determined,
- f) the structural changes in the demands created by economic growth should be outlined and collated with the capacities of the existing school types (also as a function of time),
- g) it is necessary to determine the material incentives and social circumstances promoting the mobility and efficiency of manpower in compliance with the economic and educational aims.

All requirements and relationships enumerated here can, obviously, not be revealed when drafting the first educational plan. It is also evident that only part of the funds are available at the time when the programme is launched because they are meant to be created by the process of economic growth. Hence the best educational conception is fraught with uncertainty factors.

Yet a good development conception is not only a mere collation of targets and means but is, at the same time, a system of concepts prompting wide associations in connection with the given problem. It does not matter therefore that many

questions remain open in the first period or that temporary short-term programmes are to be drafted. The development conception will reveal the relations and effects to be studied in connection with the expansion and reorganization of the educational system. Here I wish to emphasize again that the plans of education and of the utilization of manpower constitute a comprehensive system of concepts, and that any question of detail can only be answered with due regard to the whole. This is why the elaboration of such a conception requires a team of different experts, and in no case must it be compiled mechanically, by adding up the requirements presented by the various pertinent organs, without these organs having completely understood and approved the system of thought underlying the conception.

The planning of employment should rely on one of the many possible classifications of occupations. The widest known is Parnes's classification which he used for the Mediterranean regional plan established by OECD.

Parnes assigns the occupations into four categories: those requiring university or college education, those requiring 2 to 3 years of studies after secondary school, those requiring secondary education and occupations not depending on any previous training.

Parnes has classified the 1,345 occupations enumerated in the International Standard Classification. While compiling the occupation lists it is not expedient to go too deep into the details. In practice every planning has its limits since all circumstances and possibilities can never be predicted. Hence, if the planners are absorbed in minor questions, planning becomes degraded to routine work and loses its most essential feature, the readiness to change and shape the conception according to the circumstances.

As mentioned before, the effects of education take a long time to assert themselves, and all large-scale development conceptions should be prepared for a longer period. This, of course, does not mean that the short-term plans and action programmes are irrelevant. Nevertheless, it is obvious that—with a short period in view, as also in the case of the economic plans—the tasks can be simply registered and added up. This can and should be done in a consistent manner, suitable for implementation; but in such a short-term plan there is no possibility of essentially changing or influencing the existing system of secondary or higher education. Anyhow, certain material incentives (e.g. scholarships, rise in salaries, etc.) can be applied even within a short-term period.

In middle-range planning (3 to 7 years), it is possible to modify the tendencies in secondary schooling to start the training of technicians, introduce certain regroupings in higher education and even to plan its gradual reform.

In the long-term plans the relative number of pupils and students studying at different levels should be correctly determined. It should be kept in mind, however, that the human resources can never be assessed with the same relative accuracy as the economic ones. Introvert educational plans are rootless because they detach the training of qualified manpower from the realities of economic growth. On the other hand, it would be a mistake to think that the educational plans can be simply derived from the economic plans.

## Synchronization of Economic and Educational Plans

The synchronization of the economic and of the educational plans represents a great problem. We have earlier pointed out that the effects and processes in education take more time than those of the economic phenomena. This means that if the economic plan and the educational plan related to each other through certain action programmes are started simultaneously, the implementation of the latter will take more time than that of the former. The execution and the wide operation of a major project, for instance the building of a dam, irrigation and similar constructions, induce serious changes in the economic life of the country. During construction and after the beginning of the operation of the relevant establishments hundreds and thousands of highly qualified cadres and specialists will be needed. These are obtained partly by formal education of secondary and higher grade, and partly by training and retraining the working adults.

When weighing the quantity of the qualified manpower obtainable by formal education and the time when they can start working, it should be taken into account that in the developing countries there are no reserves of qualified manpower either within or without the education. Hence, if no special measures have been taken in secondary and higher education on the basis of central decisions—measures that could extend from the establishment of new types of secondary schools to raising and to proportionally changing the number of students obtaining higher education—then the supply of highly qualified experts and technicians will be insufficient or nil. If the central decisions and measures regarding education are taken at the same time as those concerning the launching of construction, then the qualified cadres will have finished their training later than the demand for them arises.

Thus the improvement of the methods of economic planning must include the starting of an educational action programme as an integral part of every major economic project, a long time before the starting of the economic projects themselves. This is the only way to have the necessary experts with secondary and higher qualification ready at the critical date. In every economic conception (including medium-term plans) it is inevitable to solve many tasks of very different duration. Essentially, the synchronization of a plan means that the expected changes in the various tasks are evaluated on the basis of the speed of the processes involved in them and efforts are made to find a solution co-ordinating all processes with due regard to the given targets and dates. Such a synchronization is of particular importance in the case of educational programmes.

The time factor has a considerable say also in the financing of education. Today the various countries assign 2 to 7 per cent of their national income to education. (In the state budget the share of educational spending is anywhere between 15 to 30 per cent.)

When drafting the educational programmes, especially the long-term ones, endeavours must be made to assess the expected rise of the costs, or else neither the priorities nor the other tasks can be outlined correctly.

When weighing the expected trends in financing education, the expected increase of the national income and of the state budget income is calculated. The funds to be devoted to education will be determined on this basis.

It may, however, occur that the national income and the state incomes are found to rise slower than expected, or state expenditure for other purposes may increase more rapidly. If the funds turn out to be smaller than expected, the educational programme may come to a crisis. At that time a certain part of the programme is well under way and it would not be rational to stop its progress since this would reduce or wipe out the efficiency of the funds already spent. And the cancellation of the other parts which have not yet been launched would cause a slowing down of the development or may even lead to political tensions. (A case in point would be when the parents are obliged by law to send their children to school but class rooms are insufficient; or when poor parents have been persuaded to send their talented children to secondary school but there are no funds for scholarships.)

### Implementation of Educational Plans with Means below the Projected Assignment

Anyhow, the economic growth through a long period can never be expected to materialize exactly as foreseen in the plans. It is therefore expedient to elaborate several variants of the educational programme, which should differ not so much in content (e.g., as to how many students will be accepted by the various educational institutions and what to include in the curricula) as rather in the methods of implementation. If, for instance, the expansion of higher education is based on the establishment of a new university but the construction of this must be postponed, efforts should be made to train more students on the existing university or universities. (In this respect there are still large reserves available in most developing countries.) If the new secondary schools are not ready, multi-shift training should be introduced in the old schools, the number of the teachers' weekly hours can temporarily be increased, the curricula of the existing institutions can be extended, etc. It is, naturally, not fortunate if the necessity arises to resort to such measures, yet the approximate implementation of the original programme under less favourable circumstances is still better than a radical cutting down or cancelling of the programme as a whole.

Finally, I wish to point out that, the planning of the output of qualified manpower cannot be left with the Ministry of Education exclusively since its contacts with economic life are rather loose. Planning should be the task of organs responsible for the whole conception of economic growth. (Evidently, it must be performed in close co-operation with the educational apparatus.)

Such organs may be the national planning commission or office which should have a special department for this purpose, or some high-level government committee in which all the ministries concerned are represented. An independent sec-

retariat or a department in some ministry should prepare and organize the work of this government committee. (For instance, labour section of the planning committee or the section for planning of the ministry of education etc.)

### New Elements in the Development of Science and in Its Relation to Economic Life

The acceleration of economic growth requires the large-scale development of the scientific capacities of the developing countries. The conditions, circumstances and requirements of this development differ from country to country, whence it is necessary to evolve a uniform national science policy. In doing so the starting points should be the internal problems of science and the needs of economic growth.

The situation of science, its requirements of material and intellectual assets, as well as the concepts regarding the purposes of research and the utilization of the scientific achievements, have undergone radical changes in the past decades.

a) Science today is a substantial consumer of intellectual and material values. It attracts a large proportion of the highly qualified and talented manpower and also demands considerable capital investments. According to reliable data,<sup>7</sup> the United States and the Soviet Union employ one million people each, Federal Germany half a million for scientific research. Consequently, the scientific research workers constitute a growing portion of the employed population. Accordingly, the industrially advanced countries devote an increasing part of their national income (2 to 3 per cent) to the development of science. The state—also in the capitalist countries—has an increasing role in the financing and execution of research. More than 60 per cent of the total research work done in the United States, nearly 70 per cent in Great Britain and in France are financed by the state.

About 20 to 40 per cent of the research work is done in state-owned scientific institutions.

b) The primary purpose of scientific research today is not the discovery of the laws of nature. Historical experience shows that we must rest contented with the discovery of facts which can be investigated within the limits of present conditions. Practice has proved that later, under more favourable conditions, we can come across more exact and accurate facts. The discovery of truth in nature or society, i.e. its direct knowledge was a necessary step in the millenia of the development of human knowledge when concrete research concerning the evaluation of natural and social conditions could not be conducted to a sufficient extent. Today, however, it would be tragic or, what is more, ridiculous to try to make direct "discoveries" by neglecting the achievements of concrete research or to dispense with concrete research altogether. But science has become capable of

<sup>7</sup> R. E. Freemann and A. Young: *The Research and Development Effort in Western Europe* OECD, Paris.

working out the strategy of human action with the help of which certain determined aims can be attained with at a minimum loss and with growing certainty and accuracy.

c) The efficiency of scientific activity has so far evolved from the competition between the research institutes and scientists of the advanced countries. An intense individual struggle was fought for superiority which kept most scientists in a constant strain and in a highly strung intellectual state.

But in our days the scientific achievements have a dual character; each new piece of information is a part, a segment of universal human knowledge and thus, in a certain sense, detaches from the social and national background of scientific research and is mostly the outcome of research done in institutions commissioned and financed by the state or vast economic organizations. The utilization and adaptation in practice of the scientific achievements increase the profit of these organizations.

In similar circumstances the differences in the distribution of knowledge between the nations tend to accumulate, since it derives not exclusively from the internal efficiency of scientific work (although this would not result in equalization either) but also from the material resources and interest concentrated in the organizations financing and utilizing the achievements of research. In other words: a greater economic power can create larger research bases, more achievements and also more profit from their practical utilization, because a greater organization has larger markets, can manufacture at a higher scale, can influence the export prices to its advantage, can spend more on the propagation of its commodities, etc.

This cumulative process engenders new inductions in this new economic circuit since the higher profit permits more to be spent on scientific research, and this again increases the volume of attainable profit.

In addition to this, the technological progress of the past decades has proved to depend, in the first place, on four or five industrial branches which need vast intellectual and material resources and secure, at the same time, unprecedented productivity.

Such industries are the nuclear industry, electronics, the chemical industry and motor industry. The development of these "dynamic" branches requires the concentration of great scientific forces. It may therefore be assumed—and it has been demonstrated by the mathematical models of the outstanding French economist, F. Perroux<sup>8</sup>—that the differences in the technical level tend to grow even between the advanced industrial countries.

It follows that the position of a country in scientific research will be influenced to a much greater extent by its economic power than any time in the past. This applies, in the first place, to the disciplines whose research and findings require vast economic resources to be continued and to be applied in practice.

<sup>8</sup> F. Perroux's lecture delivered at the Marx Károly University of Economics, Budapest, in 1964.

A weak national economy is unable to meet the requirements of such branches of science, especially the costs in the stage of experimentation immediately preceding economic utilization, which is known to be the most expensive, and to apply the scientific achievements in production. It may happen that results are achieved in certain fields but their application requires more material and financial resources than are available in the given country. In this case the scientific achievement must be sold, in the form of licences, to some other country. This also yields a certain amount of income, but the returns will be rather moderate. Moreover, in this case, scientific research loses the direct contact with everyday industrial practice and must dispense with the stimuli resulting from it.

The changes in the situation of science, in the attitude of public opinion regarding the aims of scientific research and in the ways and costs of utilization of the scientific achievements should all be considered when drafting a scientific programme for a developing country.

### Factors Limiting the Possible Scope of National Science Policy in Developing Countries

In shaping their national science policies the developing countries must cope with the following difficulties:

a) The scientific capacities in our world are distributed more unevenly than are the economic ones. The developing countries share 11 per cent of the world's aggregate national income, 28 per cent of the total production of energy carriers, 6.7 per cent of the steel production and only 5 per cent of the world's scientific capacities. Thus only 5 per cent of the world's capacities are available for them to conduct research indispensable for the economic advancement of 71 per cent (or 81 in the year of 2000) of the world's population.

b) The intellectual and material energies indispensable for the development of science are scarce. In the developing countries the economic life or, more precisely, industrial activity is not sufficiently developed to create the conditions in which science can thrive. Only a small portion of the national income can be allotted to scientific research (generally about one per cent). Funds for this purpose are granted almost exclusively by the state which is also obliged to aliment simultaneously a whole range of projects from its low incomes. The scarcity of the funds available for scientific development is due, in the first place, to their being produced by the old social formations that have not even reached the stage of the industrial revolution, whereas the demand for them derives from the new economy in the making.

c) Scientific research is also a low-speed factor of economic development; it becomes efficient only after a certain period of time. This applies also to the advanced economies where synchronization is equally indispensable. In the developing countries, however, the bases of scientific research have not yet developed (in-



cluding, of course, the body of scientific research workers and the research institutions themselves). These bases must be established during the first development period when the returns from economically utilizable scientific achievements lag far behind the costs of the education and training of scientific workers and of their equipment.

d) It is also necessary to consider the extremely intricate character of the scientific problems awaiting solution. This intricacy is due to two circumstances: first, an accelerated economic growth is to be achieved by directives from above; second, a large part of the achievements attained in the scientific institutions of any country cannot be directly utilized at home.

An accelerated economic growth directed from above and striving to achieve maximum efficiency on the national-economic level involves more complicated scientific problems than does any spontaneous development coming from below. (We do not suggest that it would be better to wait until the development is induced from below. As experience shows, the conditions for this type of development have so far not been favourable. Hence the dilemma consists in not starting development from above or from below but rather in the question of advancing or stagnating.) In an economy governed from above, the targets set for the society are to be determined centrally, and the central power is responsible for creating conditions promoting growth. This task is rendered extremely difficult by the fact—never encountered in the history of the advanced countries of our days—that very different social formations exist side by side, and their activities and positions must be adapted to the requirements of growth.

The other circumstance to be kept in mind is that, in agriculture, the principles of organization and technology evolved in the temperate zones cannot be applied in the tropical and subtropical developing countries without substantial modifications. It may, for instance, be necessary to take into account for long decades that stock breeding will remain geographically separated from crop growing; that the claiming of areas poor in precipitation requires the application of hitherto unexplored but obviously expensive techniques; that the soil climate of the tropical and subtropical zones essentially differs from that of the temperate ones; that the soils are relatively poor and exhausted by migratory cultivation or monocultures; that the supply of water is uneven, and so on. Clearly, the development of tropical agriculture requires large-scale scientific research which should be conducted with the most up-to-date methods without, however, being dominated by preconceived value judgements, opinions and dogmas.

e) It is important to realize that scientific research in the developing countries incurs a double risk. All scientific research work is known to be accompanied by some calculable risk. If in an industrial country research fails to come up to expectations, the development of a particular industry and of those associated with it slows down, the rivals gain ground on the foreign markets, the industry's growth rate and its share in the national income decrease. Inefficient scientific institutes and their leaders lose the confidence of the customers and receive no

further commissions. The institute may then be reorganized, the contracts of the leaders are not renewed or, in particularly grave cases, the institute goes bankrupt. But these consequences are mild when compared with the consequences a similar failure may involve in the developing countries. Let us take for example the failure of some research in agriculture to which the few available material and intellectual means have been devoted for years and years: in a developing country this does not only involve the omission of research in other fields, where presumably better results could have been achieved, but may lead to a shortage in foodstuffs may result in hundreds of thousands or millions dying of starvation. Thus is the developing countries miscarriages may objectively occur but are economically not permitted.

f) The national science policy of the developing countries is to be framed in a period when the scientific-technical revolution in the advanced world has already shaped the basic conditions of the general development of science. This, as we have seen, requires the concentration of great material and intellectual forces, like in economy; so much so that only the greatest and economically most powerful countries will be able to advance all branches of science. Consequently, the developing countries must in most cases adapt foreign scientific achievements, and the countries belonging to one region are compelled to create gradually a wide scientific co-operation.

The national economy, as a historical workshop, will, naturally, subsist for a very long time. History has proved that every people must undergo the difficult and painful process of economic growth. Nor will any people accept a more advanced economic system if it is imposed on them by violating their national independence and insulting their national consciousness. Also, the history of the past few decades has shown that a large-scale economic integration does not involve the submission or neglect of the national interests. In science, the situation is similar in many respects. Every nation must become capable of developing, on its own, certain disciplines or else it will be unable to adopt foreign achievements. Yet co-operation is indispensable because today there are more than one hundred nations whose population falls short of 15 million, and the population of many others is below 4 to 5 million. In Africa there are 13 countries with a population under one million.

Every nation has an unalienable right to build up an independent economy and to pursue an independent science policy. The right to something, however, does not mean that this right must be asserted without any further considerations in the individual cases.

The alternatives do not consist in either developing national science or adapting and co-operating. Without a certain adaptation and co-operation in certain fields, no national science can be developed when only scarce resources are available. In other words: every nation has the right to independent existence, yet no nation, especially the small ones, may hope to solve all its problems alone, without maintaining contacts with the rest of the world. A complete segregation would anyway ruin the nation.

- When framing national science policy it is necessary to reckon
- with the possibilities of adapting the scientific results achieved in other parts of the world,
  - with the available scientific aid from the various parts of the world, meant to mitigate the disparity existing in the present distribution of the scientific capacities,
  - with the possibilities of regional co-operation promoting the better concentration of the scarce material and intellectual energies.

### The Problem of Priorities in the Development of Disciplines

Priority should be given to the development of disciplines on which the acceleration of economic growth, the maintenance and raising of its growth rate depend. We know that this opinion is regarded by many as one-sided, as some kind of unilateral economism. Yet it is natural that in the case of economic stagnation, of a declining rate of growth and of significant troubles in the equilibrium, the material and intellectual conditions for the development of sciences cannot be created. Scientists must understand that the endeavours to achieve economic growth under such conditions result, in a certain sense, in a national "state of emergency" in which all and sundry must voluntarily submit to the interests of the community and to certain norms over a certain period of time.

It would, however, be a mistake to interpret unilaterally the disciplines strictly connected with economic growth, i.e. to say that only such branches of the natural and technological sciences should be developed as can directly be utilized in production. Economic growth is a complicated process requiring the most intensive co-operation of the state, the society and the individuals or, what is more, their common and co-ordinated action. That is why we consider it indispensable to develop such social sciences as economics (cf. planning and enterprise management), sociology (cf. the natural forms of the inherited social formations and the possibilities of their transformation), and the techniques of public administration.

In the first period of economic growth priority should be given to such disciplines of the natural sciences as geology (exploration of minerals, the geological mapping of the country), hydrology (water regime, irrigation, regulation of waterways), soil science (agricultural production) and biology (crop growing and stock breeding).

As soon as economic growth is started, there is a growing interest for research in these sciences. The scientific training of the younger generation must, obviously, be coupled with research, the more so if there is a shortage of cadres. In no other fields can the young candidates learn as much as in the practical research work done under the guidance of their older colleagues. It is often necessary to invite scientists and research workers from abroad to join research: they are made available through international organizations or under bilateral agreements on assistance. The postgraduate training can also be coupled with concrete research work. These combined tasks can be solved in various ways: the universities (faculties and

institutes) must do scientific research work (chiefly when commissioned by the government) and the research institutes must undertake to solve certain tasks of postgraduate training. Strictly profiled specialization is, at the beginning, not desirable in developing countries. This is permissible only where cadres abound, though even in this case it often leads to bureaucratism.

As a further step, the cases when the establishment of independent national research institutions seems reasonable should be carefully weighed. Research drillings necessary to explore natural wealth, for instance, absorb vast capacities over several decades. The utilization of water power, the building of irrigation plants and the introduction of a rational water regime constitute no lesser tasks. What is more, these problems can usually not be solved within a project comprising a single country since the geological conditions in several adjacent areas are often similar, and some major water courses sometimes run along or through several countries. It is therefore theoretically possible and also desirable for more than one country to co-operate and finance in common the creation of regional hydrological or geological institutes.

### Regional Co-operation in Science

It is, of course, not an easy task to organize research institutions on a regional basis with the co-operation and financing of several countries. National prestige, often hostilities of a long standing or rivalry, the vanity of scientists and statesmen and their competition are so many obstacles in the way of creating such institutions. The national feelings in a society and the competition of the scientists—beside many negative features and in spite of the possibility of degeneration—are part of the driving forces in development and should be given serious consideration. To neglect or underestimate them would result in more damage than advantage.

Co-operation may be hampered also by objective difficulties. It is, for instance, very difficult to agree upon the priorities in research relating to more than one nation, or to concentrate the research workers around tasks in which not all participating nations are concerned to the same extent. This is clear since to establish priorities means to withdraw certain forces from one place and to direct them to some other. Hence the nations from which certain forces are withdrawn invariably feel to be in disfavour.

Aware of these predictable difficulties, efforts should be made to start co-operation since the parcelling up of the very scarce intellectual and material capacities invariably involves tremendous losses. It should also be taken into consideration that similar co-operation will have to be achieved in many other fields (although certain obstacles may be expected there, too), for instance in politics and diplomacy, in economic planning (e.g. the co-ordination of industrialization plans), in higher education (the creation of universities), in public health (to fight epidemics), in foreign trade (the co-operation on the world market of countries exporting identical commodities), in the construction of power systems, etc.

Scientific co-operation can be strengthened by three factors:

a) If the international organizations and individual advanced countries were to secure scientific-technical aid in disciplines where regional scientific institutes are working, the aid should be granted to these institutions. This would release surplus capacities permitting the participating nations to obtain more and better services over a medium-term period than what they could afford to their own institutions.

b) If surplus capacities cannot be obtained or can be secured only in a very restricted extent from other continents, the first step should not be the foundation of a scientific institute but the creation of a common (regional) scientific enterprise commissioned to fulfil some determined task (as, for instance, the regulation of a river).

A common enterprise will raise fewer theoretical and organizational problems and questions of prestige. In the case of success, endeavours should be made to develop the enterprise.

c) An adequate national scientific apparatus should be reserved for "minor task" (e.g. regulation of small rivers, construction of barrages irrigation, etc.). Such tasks exist even in the smallest countries, and it would not be reasonable to transfer them to some regional institution.

Such an organization of scientific co-operation would probably promote the development of regional institutions and thereby the better concentration of the available intellectual and material resources and their more efficient utilization.

The "science of sciences" could, obviously, give valuable assistance to the developing countries. But with their science policy radically differing from that of the advanced countries, the economic efficiency and organization of research must be assessed from different angles and on the basis of different criteria.

It would be of paramount importance to establish close links between the problems of theory and practice on all levels of scientific research.

When framing the national science policy particular care should be taken

- to determine the proper ratios and relations between the various levels of scientific research,
- to co-ordinate activities on the different levels in order to achieve one or more targets,
- to create an external and internal atmosphere promoting scientific research,
- to specialize research workers in compliance with the requirements,
- to establish permanent scientific research teams.

Let us examine these requirements one by one.

### Linking Different Levels of Scientific Research

The levels of scientific research are referred to by different terms which, however, cover similar content. Most countries distinguish between fundamental, applied, development and adaptation research.

Fundamental research is striving at finding new ideas, establishing new systems of thinking or at discovering the missing links between existing ideas and systems of thinking. New ideas crop up very rarely in science, and their discovery cannot be made the direct task of research. Research today, as has been said before, tries to clarify, in the first place, questions that can be solved within the existing limitations, with the hope of discovering later some more exact truth. It is evident that fundamental research, promoting the development of scientific thinking cannot be dispensed with, yet it must not rank too high on the list of tasks and require an all too great share in funds available. In addition to this, fundamental research must never be allowed to lose contact with life and practice. When organizing science in a developing country it should also be realized that the principles of economic rationality have not yet gained ground in this society, and the scientists are inclined to neglect the requirements deriving from it. This, of course, is by no means reasonable since irrational actions are not allowed in developing countries either; the norms of rational action are binding upon all socio-economic systems. As far as its contents is concerned, a rational action, naturally, has a different meaning in a state-controlled economy struggling with the general scarcity of development energies and with a labour surplus, on the one hand, and in a capitalist economy governed by endeavours to maximize profits and struggling with lack of manpower, on the other.

Applied research has a particular importance for economic growth because it leads to what is termed development research, destined to introduce into production the scientific results achieved.

Development research is, for well-known reasons, more costly than fundamental and applied research. Hence, when weighing the relationship between the research targets, we come to the conclusion that development research should rank highest in the budget. If, for instance, too much is spent on applied research then, viewed from the angle of production, the scientific results are available in the form of semifinished assets which, for lack of material and intellectual means, cannot be utilized in production.

Hence the channel leading from applied research (and, to some extent, also from fundamental research) to utilization in production must necessarily expand. We hardly incur any risk by saying that at least 50 per cent and at most 70 per cent of the expenditure allotted to science can be devoted to development research. If, however, the maximum limit is transgressed, the development stage will not obtain significant achievements from the fundamental and applied research to be developed further for utilization in production.

Adaptation research plays necessarily a very important part in the life of the developing countries, since adaptation means much more than the establishment of a detailed documentation. The necessity of adaptation derives from the fact that many technological results achieved all over the world do not merely represent some new commodity or a more up-to-date form of some means of production but a new technological principle. The industry affected by the technological innovation may not be planned to be developed in a given country, yet the technolog-

ical principle underlying the innovation must be known, not only in order to develop technological thinking but also for the benefit of the relevant branches of production, services and consumption. On the other hand, the introduction of a new technological principle may modify the conditions of economic efficiency, profitability and amortization relying on which the domestic development of the given industry had been decided or discarded.

It is necessary to adapt the technological results achieved in industries developed at home. Later some domestic research will also be necessary to secure the development of the said industry at home. This, however, does not mean that the more important foreign results should no longer be adapted, since anyway the first scientific generation—disregarding certain exceptional cases and talents—will not exceed the level required by adaptation in development and concrete production research.

It seems to be a contradiction to argue for the industrialization of the developing countries, on the one hand, and, on the other, to say that they should, for the time being, endeavour to adapt foreign results in the field of technical sciences. Would it not be more reasonable to develop the scientific basis one step ahead of industrial activities? In this case every step in the new industry would be prepared and supported by the work of scientific research workers at home.

Viewed in itself, i.e. irrespective of the conditions and circumstances, such a development would indeed be useful. Yet the establishment of the priorities, as has been said before, becomes necessary on account of the extreme scarcity of the available means. A country in such a condition is not able to develop all branches of science or to prepare every step of economic growth by relying on an adequate national scientific basis. However, when establishing priorities, the applicability of the internationally available scientific information should also be taken into account. Technical knowledge—in the case of proper economic decisions (the correct choice of techniques)—can be applied without further modification in the developing countries whereas agricultural knowledge and research methods cannot. The agricultural conditions of the developing countries substantially differ from those of the countries in the temperate zone. Agricultural knowledge and concepts are determined by geologic, climatic and soil conditions as well as by inherited production experience and skill; in this sense, they are specialized. It is, naturally, no part of our intention to discard the agricultural knowledge and investigation methods accumulated over generations in the industrially advanced countries. Yet it is obvious that the adaptation of the technical achievements in industry are only limited by economic factors while in agriculture natural endowments constitute an additional influencing factor.

It follows that the agricultural growth of the developing countries is much more research-intensive than their industrial development. In industry the lack of knowledge and experience—with due regard to international aspects—can be balanced, but in agriculture the situation is different.

At the outset efforts should be made to adopt the existing technical achievements, and the research units should be established—if possible around the factories—only after the creation of the various industries.

It is important to co-ordinate the activities carried on in the various scientific levels from the angle of the research targets. It is a frequent mistake even in industrially advanced countries for fundamental research to hold aloof from applied research (people studying far-reaching theoretical correlations are inclined to adopt the attitude of scientific aristocratism, and their colleagues of a much smaller calibre are too ready to commit the same mistake), and thus applied research fails to find contacts with development research. This situation is often aggravated by the fact that the work of the various scientific institutions is also rather isolated.

We have no intention to discuss problems of science organization in this chapter, yet we wish to point out that, during the building up of scientific activities, the separating factor is the system of directing and financing, whereas the connecting factors are the tasks.

That is why it is expedient to co-ordinate the major research tasks (of importance for the national economy) to serve the ultimate aim, i.e. the utilization of the scientific achievements in production as required by economic growth. Thus the economic efficiency of scientific research conducted on higher levels should also be checked against the possibility of its utilization. This kind of research organization is not always welcome by the existing scientific institutes since bureaucracy, relations of subordination and the thinking in terms of competence have become deeply rooted also in these institutes. Yet it will soon turn out that the co-ordination of research with due regard to the ultimate aim is the most productive method to promote the achievement of results and intensively to develop the faculties of the research workers.

### Social Atmosphere Encouraging Scientific Research

The trends in the external and the internal (interscientific) atmosphere encouraging progress have a great significance for the development of scientific research. By external atmosphere we understand the government initiatives, the productive social environment which impart momentum to the creative energy of the scientists. The scientists in this environment must feel the boldness and largeness of the conception by which the government approaches the vital problems of national existence. Confidence and expectation with which the government and the population follow their work enhance the development of the creative energies of the research workers. In addition to this, material reward must permit the research workers to live free from care, yet their living conditions must not detach them from the large masses of the nation. An organic part of the external atmosphere is the manner in which the suggestions and proposals of the scientists are discussed, adopted and implemented. This is of particular importance in a society where—owing to the scarcity of material means—the scientists and research workers cannot be influenced exclusively or chiefly by material incentives. Most scientists and research workers in the developing countries live and will have to live under less favourable conditions than do their colleagues in the industrially advanced countries; yet if they realize their moral obligation toward their country, they will



stay at home and work enthusiastically. Their loyalty and devotion will be enhanced by realizing that their suggestions are given serious consideration and their sensible proposals are adopted for implementation. Yet they may be demoralized if their suggestions are not taken seriously or are entirely disregarded. This gives them the impression that their efforts are wasted, that their country and nation do not benefit from their work.

Under such conditions the scientific workers will be dissatisfied politically because in the case of disappointment a high political enthusiasm tends to turn into a hostile attitude rather than into indifference. Since the scientific workers do not stop loving their country and people, their hostile attitude will naturally concentrate on the political leaders and the government. To prevent this from happening, the government must see to it that the suggestions and proposals of the scientists and research workers are considered and put into practice.

The internal atmosphere of science is another factor upon which the direction and the efficiency of research largely depend. It is usually said that the internal productivity of science depends on the competition between the leading scientists and institutions. A wide-scale scientific emulation characteristic of the old industrial countries can, for the time being, not take place in the developing countries since there are few research workers and the funds that can be devoted to research are restricted, while there is a tremendous demand for scientific achievements suitable for application. Hence it is usually impossible to have more than one working team (i.e. leading scientist) for tackling one single scientific problem. This would involve a hardly permissible waste of scientific forces and development means. In other words, in the first period of development research monopolies are born. This can hardly be avoided although the cropping up of such monopolies is not a healthy symptom. The situation is aggravated when certain research workers (leading scientists) "develop" the research monopoly into institutional monopoly. This happens when a scientist having a research monopoly acquires a scientific post (director of a research institute, chairman of a co-ordination committee or head of a governmental committee deciding in matters of financing scientific research, etc.) permitting him to oust a potential competitor. This can be achieved in a very delicate manner, as for instance, by commissioning a rival to investigate some other theme.

An institutional scientific monopoly may become dangerous since then no one controls the results of research in practice. Even when introduced in production, much time will elapse before it becomes obvious that the results have steered practice along a wrong track. If research has taken an undue course, the material and intellectual energies devoted to it are wasted and also the new generation of scientists will be found to have been carried in the wrong direction.

It is therefore necessary, in spite of the scarce available capacities, to establish control over the scientific results (in the last resort by the aid of foreign experts). Internal control is facilitated if the various research levels collaborate: those nearer to production and utilization can always check the achievements in fundamental research.

In order to make research efficient and to create an adequate internal atmosphere, efforts should be made to prevent institutional (or positional) monopolies from developing, and to ensure the spirit of a sound competition, criticism and debate among the scientists. Otherwise the younger generation will learn the techniques of the struggle for positions much sooner than the art of research.

### Problems Associated with the Specialization of Research Workers

With respect to the establishment of research institutions and to the training of the young generation, the expedient specialization of research workers is an important problem. In this connection two important factors should be weighed:

- a) the requirements and possibilities deriving from the situation of the developing countries and from the process of economic growth,
- b) the development tendencies to be observed in world science.

In the light of these considerations, a large, i.e. not too narrow specialization of the research fields and workers seems to be more purposeful. The degree of specialization is determined not only by the content, the amount and the inner coherence of the body of knowledge but also by the ratio of the available scientific capacity to demand. If the scientific capacity is lagging far behind the demand for scientific results—which is known to be the situation in developing countries—it is not expedient to establish narrow profiles in specialization since the associate research workers and experts are mostly missing.

Another factor favouring large specialization is the endeavour to prepare better the rational human action materializing on the social (national) level. When outlining rational human action we must not stop at the demarcation line, evolved historically or established theoretically, of the various disciplines. Without being aware of the associated problems (i.e. those cropping up during conscious human actions) and by considering only part of the relevant truth, we have no sufficient basis for deciding and acting. That is why the research workers should be called upon to acquire a wider horizon and should be given institutional possibilities to do so. We do not have a new encyclopaedism in mind because this is a scientifically obsolete notion, but in a developing country the scientists must needs have a wider scope in research and a deeper knowledge of the major criteria and interrelations of national existence and economic growth of their country than have the scientists of other countries. Besides, this statement does not contradict the existing practice either, since every developing country can boast of great scientific personalities who are not only authorities of their discipline but are also the stimulators of national and economic development and who, led by national enthusiasm, by their democratic conviction and affection for their people organize, inspire and educate thousands of their compatriots.

Nor is this trend of development opposed to the corresponding process in the industrially advanced countries. Here, as a reaction to narrow specialization, the various branches of science begin to integrate. Scientific integration requires wide and many-sided knowledge from the scientists but not in the sense of encyclopedism. They are expected to be acquainted with at least the problems, investigation and research methods of the ancillary sciences and their recent achievements. And this is often not sufficient because in research the methods of approach are sometimes more important than the contact points.

A far-sighted science policy may encourage the scientists of the developing countries to investigate and work out the norms of rational action with respect to various scientific problems in the context of the present state of integration of the relevant disciplines. Great as the differences are between the industrial countries and the developing ones in scientific capacities and in resources that can be concentrated on their development, a start made from the angle of rational human action reveals certain similarities. The planners of the national economy, for instance, must reckon both here and there with the political and social consequences of economic decisions. The contents of rational action differ and so do their political and social consequences; yet the suggestions or proposals that are advantageous "from the purely economic viewpoint" but are harmful and impracticable politically and socially must be discarded either here or there.

We have quoted this example to show that any approach to problems from the side of rational human action requires, in itself, a wider horizon from the research workers and sets tasks that cannot be carried out by experts of a narrow specialization or people stuck in their own discipline.

We, naturally, do not mean to say that the interconnection of knowledge can only or chiefly be revealed through human action, but there is no doubt that the existence or absence of certain presumed connections, the appearance of connections not presumed and their quantitative significance can be ascertained and measured in an exact manner in this very phase of human activity.

### Preparation of Rational Human Action as a Scientific Task

It follows that when framing national science policy, it is necessary to consider the consequences and demands deriving from the preparation of national human action. We have so far pointed out that the priorities should be deduced from the needs created by economic growth, on the one hand, and from the interconnections and coherence of scientific knowledge, on the other. Let us add now that the establishment of priorities should also be completed with the scientific requirements determined by rational human action. It is, for instance, possible that the decision theory or the input-output theory or the PERT system are such parts of economic science as could be investigated and adapted on the basis of the internal correlations of knowledge only after many years, yet the preparation of rational

human action requires their immediate investigation and utilization. Here is another example: the knowledge of how to implement the macro-economically determined aims of economic policy is not very advanced in the developing countries. The organization of pertinent research in these countries is obviously extremely difficult. Nevertheless, it must be remembered that the theoretical and practical solution of the problem is a vital postulate of economic growth. It follows that the investigation of these problems must be started immediately, although it would be better to organize it on an international basis or at least in co-operation with several developing countries.

The creation of more or less permanent scientific teams with exponents of disciplines most essential to the solution of this or that task will be of paramount importance. (We mean scientific teams organized on a complex basis.) This form of research organization has many advantages: it blurs the bureaucratic demarcation lines in science organization, promotes the development of complex research methods, widens the horizon of the scientific workers and secures a better ground for making and implementing rational economic decisions. It is hoped that scientific bureaucracy is not yet strong enough in the developing countries to be able to prevent the adoption of this rational method of organizing research.

### Disciplines Promoting the Foundation of National-popular Consciousness

And, finally, we must not forget about such branches of social sciences as may greatly contribute to the development of national consciousness. What we have in mind are such scholars as linguists, historians, historians of literature and art, archaeologists, ethnographers, musicologists, etc. Many undervalue these disciplines, although it is a natural endeavour of every living, thinking and feeling organism, whether an individual or a community, to reveal its own past and to get to know its "national personality" as expressed in language and art. This is of particular importance in the developing countries since in many of these the cohesive forces are still not sufficiently solid. Cohesion will develop later on, in the furnace of economic growth where the isolatedness of ethnic groups and areas is bound to dissolve. On the other hand, the evolution of a new state creates certain common interests as against the "outer world", whence foreign policy is another factor efficiently promoting the national development of these countries. The understanding of the ethnic individuality evolved in the past, the study of history and language will all contribute to the great cause of building up a nation.

We wish to stress that the past of these countries is part and parcel of the past of all mankind. Hence the significance of cultivating these disciplines goes far beyond the borders of these countries since progressive mankind wishes to embrace the rich cultural heritage of the developing countries as a magnificent chapter of the common past and traditions of humanity. The intensification of inter-

national life in our age may promote, and the public opinion in the developing countries encourage the scholars inquiring into the rich heritage of the national past and traditions to safeguard themselves from two serious errors most of the scholars of the advanced countries have committed and are still inclined to commit.

One is the "mythicization" of the past, i.e. the exaggeration of the importance of historical events and their detachment from their real background. The 19th century the European nations remind us of upstarts hunting for ancestors or creating them for themselves.

The other mistake is to set the inherited traditions against the requirements of contemporary development. This often leads to provincialism and to the refusal of the norms of contemporary socio-economic development. The preservation of the cultural heritage, as we have stressed more than once, is of a tremendous importance because it is through the cultural heritage that a nation of today heading for tomorrow feels its provenance from yesterday. Yet however great a cohesive force such a common cultural heritage may represent, the existence and future of a nation, its place in the great family of nations depends, in the first place, on the success of economic growth, on the adaptation and introduction of the norms of contemporary social and economic development in public thinking. The foundations of a sound national consciousness and social cohesion lie not in the past, however attractive and glorious it may be, but the common work done in the present and the faith in a better future. Traditions should serve national consciousness and the building up of a contemporary society in this very sense.

Among the disciplines strengthening national consciousness let us dwell a little on linguistics. It is common knowledge that in the field of language the developing countries have to cope with particularly great difficulties. (The situation is the gravest in Africa and the easiest in Latin America.) In many countries the idea is to use the national (tribal) language in primary and secondary education. For this purpose the national (regional) languages must then be made suitable to express contemporary notions, i.e. their structure rationalized, their vocabulary amplified. Such language reforms were undertaken, as is well known, in Europe in the 18th century and in the early 19th. Yet no language reform can be introduced overnight.

A deep analysis of the structure and peculiarities of the national (regional) language is necessary for the changes initiated deliberately and "from above" to remain in keeping with the fundamental character of the given language. The vocabulary should be amplified in a way that the elements used, their compounds and the new words should comply with the true nature of the language. Otherwise the quantity and quality of the changes brought about within a short time will amount to as much as introducing a new language, instead of a reform of the original one. The language reform requires a wide and many-sided collaboration of the linguists. The international organizations, chiefly UNESCO, ought to give efficient assistance to them by communicating the recent achievements of the contemporary linguistic methods.

## The Acceleration of Development by Means of International Assistance and Scientific Undertakings

The restricted scientific capacities of the developing countries can be increased most expediently by organized international assistance. In the first period of economic growth the lack of capacities will obviously grow since the economic factors gaining impetus, owing to their greater speed, raise the demand at a quicker rate than what the scientific training of the younger generation can attain.

Theoretically every country has the right to develop its own scientific life by using exclusively its own resources. Yet under such conditions

- the relative backwardness of the scientific basis will put a check on the possible rate of economic growth,
- the scientific level of the advanced countries can be approached only after a very long period since the factors acting within international scientific life promote the increase of the disparities rather than their equalization,
- national scientific capacity established without due consideration to the international distribution of labour in science involves high costs and is economically inefficient.

No doubt, however, that rational human action must be aimed at the reduction of difficulties in the way of growth and at shortening its duration. These goals can only be attained by increasing the organization and the efficiency of international aids.

The efficiency of international technical aid in the field of science and education depends on two factors:

- a) the spirit, organization and readiness displayed by the industrially advanced countries and international organizations granting aid in their manifold pertinent activities,
- b) the spirit, organization and readiness of the research workers, teachers and leaders of public life in the developing countries displayed in the course of adaptation.

Hence it is clear that neither the granting nor the receiving of scientific and technical assistance is exempt of problems.

As to the granting party, we wish to stress the following circumstances:

- a) The internal productivity of scientific life, as has been mentioned, has so far been the result of the competition between the scientists and research institutions of the advanced countries. Viewed internationally, there are no such spontaneous factors in scientific life as would—without the deliberate decision of outstanding scientists or other persons—lead to an equitable distribution of knowledge.

It is probably painful to realize this for scientists or research workers who cherish or have cherished the illusion that knowledge in itself will have an equalizing or democratizing impact when it is or can be made accessible to everybody.

Besides the factors deriving from the inner productivity of scientific life, there are others enhancing the unequal distribution of knowledge: immense funds accumulate in the hands of the big economic powers financing research and utiliz-

ing its results. The greater these funds, the easier it is to finance further research and raise production.

The trends in this cumulative process can only be changed by deliberate decisions modifying the driving forces of the inner productivity of scientific life and the system of financing research. This can be achieved if the competition between the scientists is extended—in an adequate form—to the problems of the developing world and if part of the research activities is accordingly financed by international organizations.

b) The activities of the international organizations in the field of granting scientific aid are still in their infancy. Efficient international organizations based on the principle of universality could be highly instrumental in achieving a more equitable distribution of knowledge. It is also clear that the present situation in the world, a more even distribution of knowledge and the rapid increase of the number of independent nations require efficient international organizations.

The well-known weakness of the international organizations causes serious difficulties also in the field of granting scientific assistance. The worst shortcoming, in our opinion, is that these organizations have an insufficient impact on the intellectuals of the world and are therefore unable to draw the attention of the research workers to the problems of the developing countries. This failure of theirs is partly due to a certain "organizational self-centeredness" by which they try to steer clear of delicate problems susceptible to render their position more difficult. Tensions within the organizations can thereby be obviously reduced, yet an organization keeping itself aloof from the real problems and tensions of the world can, at best, create a favourable micro-climate, but is unable to influence world events or the attitudes of nations. The general endeavour in these organization is to turn their employees into correct international civil servants, yet the civil-servant attitude is rarely coupled with the high moral responsibility which is indispensable in discussing and solving problems concerning the fate and future of mankind. Without such a responsibility it is difficult to tackle problems of a more intricate pattern. This is how situations and organizations develop in which everybody performs his or her duties conscientiously yet work does not seem to get ahead.

c) Many efforts have been and are being made in bilateral contacts to promote the scientific and technical development of the developing countries. Bilateral relations, however, are accompanied by many political problems, require comparatively great material and intellectual investments from the granting country and the efficiency of these is necessarily restricted since there is only one recipient country. The granting of aids may result in the solution of certain problems essential for other countries, too, yet the results achieved are not made commonly accessible.

We want decidedly to emphasize here that by the above considerations we do not underestimate the significance of the well-intentioned efforts made so far. On the contrary: we highly appreciate all well-meaning and efficient assistance hitherto granted. Nevertheless, it is clear that the efforts are insufficient, whence it is necessary to increase the available scientific forces and to apply them in a more efficient

manner since the scarcity of the means in the developing countries cannot be liquidated in the foreseeable future.

But international scientific assistance has its problems not only for the country offering it but also for the receiving country.

The general reasons are well known: serious shortage in scientific manpower and institutions, in funds indispensable for the development of research. We have touched upon these problems when analysing the scientific position of the developing countries and do not wish to dwell on them here.

### Obstacles to Adaptation: Intellectual Neocolonialism

Let us, however, mention two major subjective obstacles to adaptation: intellectual neocolonialism and the attitude of the population in the developing countries towards this phenomenon is the first problem, the second being the habit of giving advice without understanding the consistent problems of the country in question.

Much has been said about neocolonialism, and we make no attempt here to give it an accurate definition valid for a long time. What we mean by neocolonialism here is the totality of aspirations to power and of the variegated pertinent methods by which the industrially advanced countries try to assert their supremacy in the countries of the third world. To assert and maintain their supremacy the leading capitalist countries, depending on their concrete position, resort to political, economic, military and cultural weapons alike.

According to the subject-matter of this chapter we shall now analyse the neocolonialist tendencies in the fields of cultural and spiritual life.

Opposed to the neocolonialist aspirations to power are, today, the socialist countries and the progressive forces (sometimes government, in other instances only movements) of the developing countries. The anticolonialist forces profess the equality of all nations and their right to choose their socio-political system freely.

In the cultural-intellectual field the neocolonialist and anticolonialist forces clash in the following issues:

a) What are the factors leading to the uneven distribution of knowledge (scientific and educational capacities) between the industrially advanced countries and the developing ones?

b) How can these disparities be reduced or eliminated?

As to the first question, the exponents of the most conservative conceptions, showing traces of racism, claim that the difference does not derive from historical development (for which, naturally, colonialism is heavily responsible) but is due to the differences between the human races (racial supremacy).

According to the neocolonialists, the difference derives not from racial but from natural-geographical factors. This opinion is not so humiliating as the argument



of racial differences; nevertheless, the neocolonialists go on saying that the natural-geographical circumstances can be modified only very slowly, and therefore the cultural disparity is bound to prevail for a very long time to come. Accordingly, a backward people would anyway remain a backward people although it could have made a greater headway in some other part of the world. Without underestimating the importance of the natural-geographical conditions, we do not believe that these, independently of other factors, could determine the fate of entire nations and continents.

More "tactful" neocolonialists claim that the presence of differences can be ascertained but its causes and factors are not known today. Nor are these worth while investigating or examining since anyway the purpose is to liquidate these differences gradually.

What all neocolonialist views have in common is that the developing countries must adopt and assimilate the ideas and ideals of the advanced capitalist society. Their argumentation equates their own ideals (i.e. those of advanced capitalist society) with the general and eternal aspirations of mankind. They call universal and general what is partial and time-bound, and they relate to this norm anything they find in other social systems and on other continents. Nor do they refer to their own social system as a concrete historical product embodying definite social relations but as the most perfect assertion of eternal human aspirations in which the natural interests of the individual comply with the general requirements of economic development.

The adoption of this neocolonialist conception by the developing countries would mean to renounce their independent historical progress and the principle of national independence. Blaizing the trail of their social and economic progress is the task of the developing countries themselves, although this requires tremendous efforts, under great difficulties and sufferings. In this endeavour they must consider every achievement of human culture and progress, but must proceed from their own position and endowments.

Hence, neocolonialism of the cultural and intellectual field is opposed to the rights of the developing countries and to the requirements of contemporary social and economic advancement.

But cultural and intellectual neocolonialism must be rejected not only by the developing countries and the socialist states. It must be rejected by all progressive movements in the industrially advanced capitalist countries. This is the only way that entitles us to hope to suppress neocolonialism completely.

The dangers of neocolonialism are enhanced by the fact that it hampers the adoption even of experience and knowledge offered in good faith and with frankness to the developing countries needing them. Owing to the neocolonialist aspirations the leaders and the workers of the recipient countries get or may get the impression that every assistance coming from outside is pregnant with dangers, jeopardizing national independence so heavily fought for and achieved. If such a national attitude develops, the knowledge offered will be judged and classified according to its origin and not to its contents: it may then happen that even progressive and

contemporary development principles are rejected, whereas obsolete principles and views are adopted when coming from sources that seem more sympathetic.

However understandable certain excesses and distortions of a national attitude towards the neocolonialist cultural and intellectual aspirations may be, progress can be achieved only in the case and degree in which the governments and peoples of the developing countries accept the really progressive and useful principles and experience adapted to their own conditions. Such a situation cannot arise unless the socialist countries and the progressive forces (within the advanced capitalist countries) opposed to the neocolonialist aspirations not only impart their own experience but have a deep knowledge of the problems of the developing countries. The situation of these countries is, obviously, so particular that all experience gained in any other country and under any other conditions has only a relative value for them.

It would carry things farther than where they are now if the international organizations were to consider this fundamental truth; because any conception, suggestion or advice disregarding the actual position of the developing countries is liable to turn out more harmful than useful.

An organic extension of the role of the international organizations (i.e. in keeping with their capacity and ability and not administratively) would result in a substantial progress in the system, methods and efficiency of technical assistance. (Other forms of international aid will be discussed in the last part of this monograph. This part is devoted to the links between the economic growth of the developing countries and the world economy.)

### Various Forms of Technological Aid

Technical assistance may assume the following forms:

- a) affording facilities of formal education,
- b) specialized training of manpower,
- c) immediate participation of foreign experts.

We have expounded our opinion on form a) in connection with higher education. This form has different variants of which the most fortunate seems to be the invitation of professors from abroad to teach in the universities of the country. (Particularly when the salaries of the foreign professors and teachers are paid by the international agency or country granting the assistance, rather than being charged against the state budget of the receiving country.) This variant is more advantageous than the sending of students to universities abroad, because the students do not lose contact with the domestic problems during the time of their studies, and the foreign professors may be engaged to take part in the discussion and solution of the problems connected with the development of domestic economy.

The professional training of manpower is closely linked with the problems of economic development. If the means of production necessary for some industry are acquired by import (which is the most frequent case), the training of manpower

should be secured by the foreign supplier (who should make preparations for this in time). But the training of the specialists necessary for the expansion of operating plants should be the task of the plant itself; if necessary, the teaching staff can be completed with experts of the foreign supplier. Subjects other than technical, such as writing, reading, etc. can be entrusted to home-born teachers.

All developing countries need and will need a large number of experts in the decades to come. These are sent either by the international organizations or under bilateral agreements. Yet the position of the experts may differ depending on whether they are requested to give advice and make suggestions to the domestic cadres or are responsible for results achieved while engaged in some post. (Sometimes foreign experts are engaged to take over the direction of a state farm or a plant.)

It is often difficult to assess the efficiency and impact of the foreign experts since they spend a comparatively short time in the country. An objective difficulty for the expert is that he can hardly acquaint himself with the local problems during a short period. Nor is it possible to make the people realize over a short period of time, the operational rhythm and the economic regime of a factory (or any economic unit). Last, it must not be forgotten, that a foreign adviser usually finds himself amidst the consequences of the measures taken by his predecessor, whereas the consequences of his own decisions will materialize in the days of this successor. In such circumstances no high individual moral, so desirable under the leadership of the foreign expert, can develop. It is therefore expedient to engage foreign experts for longer periods. This would permit them to get acquainted with the local problems (to refrain from overestimating the experience gained in the advanced countries, to give one-sided advice and take such measures), would substantiate their moral responsibility and reduce indifference and work performed at half-steam.

We have often stressed the fundamental principle that all foreign assistance should rely on the plan of economic development of the given country. The international organizations (possibly through the continental economic commissions) should study the economic situation and endeavours of the country to which aid is extended, in order to find the best contacts with the economic development plan. Nevertheless not all countries ready to grant aids are capable of acquainting themselves with the economic plans of the developing countries. This is one more reason why the international organizations should take an efficient part, on other than bureaucratic-administrative basis, in the co-ordination of assistance. This co-ordination would, for the time being, extend to general recommendations made available to all countries eligible for granting aids. These recommendations would be drafted by the continental economic commissions with the participation of all countries concerned. The next step would be to register and publish the results of investigations achieved under bilateral contracts of assistance.

Finally, the international organizations would have to commission international teams to elaborate the fundamental development problems concerning whole regions or continents. It is known that there are development problems whose scientific solution would be of interest not only for one country but a

whole region or content. Some of these problems, though internationally important, have not yet been studied on such a large scale. Their solution requires the intensive participation of the best scientific forces of the whole world. Such problems are, for instance: the agricultural utilization of arid sandy soils with poor precipitation; the possible forms of co-operation between countries or districts engaged only in stock breeding or only in plant growing respectively; the variants of future power utilization of some old establishments, etc. The investigation of such comprehensive problems—without which no medium-range plans can be compiled either—requires the co-ordinated work of many outstanding researchers. Research workers cannot be engaged in similar tasks unless studies analysing, revealing and approaching the fundamental problems of the developing countries enjoy priority in the evaluation of scientific work and achievements with the support of the public opinion of the world. For this purpose scientific prizes should be created and awarded by an international scientific forum to those who have achieved results of outstanding importance in the above-mentioned fields.

### The Social Position of Scientists and Research Workers

But science cannot be discussed without considering scientists and research workers as individuals or persons of a social standing. The role, authority and future of science in the developing countries is inseparable from the activities, the moral attitude, the national and democratic feelings as well as the financial position of the scientists and research workers there.

It should be made quite clear that there are growing difficulties in this field. The tempestuous rate at which the contacts between the peoples have developed, thanks to the advancement of technology and communication, has made the conditions of life in various countries not only comparable but also competitive. This is one of the reasons why so many leading intellectuals, such as scientists, research workers, artists migrate from one country to another. Let us add that this phenomenon can be encountered even in the industrially advanced countries. According to authentic data,<sup>9</sup> some 53 thousand foreign scientists have settled in the United States in the past ten years, most of them belonging to the younger generation: 30,000 engineers, 14,000 physicists among them. New theories have been advanced to justify this attitude, saying that in the present, world nationality depends on free choice and not on origin.

But all these showy theories conceal an improper practice with respect to the ethics of the individual and to international relations. What moral judgement should be passed on specialists who finish their studies at the price of great sacrifices made by the poor nations and then quit for higher pay? What to think of rich nations which by their immense scientific capacity and economic power attract the

<sup>9</sup> (P. I. Kapitsa) П. И. Капица in *Комсомольская Правда*. Hungarian translation: *Néhány szó a haladásról* (A Few Words on Progress). *Népszabadság*, Budapest, 19 February, 1966.

most talented research workers of the poor countries? What will happen to the developing countries if a significant part of their qualified manpower leave them? Obviously, as a consequence of such unethical attitudes, the gulf between the developing and the advanced capitalist countries will widen, enhancing international tensions.

If the efforts to impose the social and economic norms evolved in the industrially advanced countries to the developing countries in the form of an ideological conception have been termed neocolonialist tendencies, what term should be used for the tapping of scientific manpower? What happens if it is taken away from those who have little and is given to those who have much.

In our opinion the migrating of scientists from the developing countries to the industrially advanced ones is a dangerous and harmful phenomenon. It stands to reason that the developing countries cannot secure such a standard of living and research conditions to their young students as can the leading capitalist countries. Obviously, the training of the university students on other continents contributes to this process of migration.

The developing countries should grant good living conditions to their research workers and scientists. But when establishing their salaries the capacity of domestic economy and the living conditions of the population at home should also be considered in addition to the standard of living of the scientists abroad. To stimulate studies and research, the salaries should be set comparatively high but not so high as to allow the leading intellectuals to form a foreign body in the life of the country.

Even under relatively favourable conditions moral steadfastness, patriotic thinking and a sense of duty towards the community are indispensable. Although the incomes may be high in the capitalist countries but the scientists of the developing countries will never enjoy the same social respect and authority as in their own country. Nor can they feel the joy of creation of the scientist who devotes his knowledge and work to his country and nation. There is no doubt that the scientists emigrating to the advanced industrial countries can—with a few exceptions—investigate only secondary scientific problems. An emigrated scientist even when tackling problems of his own country or of the developing countries in general, will study them from a foreign point of view imposed upon him by a foreign country. On the other hand, it is no overstatement to say that in their own country the scientists and research workers of the developing world can study the most important question of the second half of the 20th century, and can turn all their achievements to the benefit of their country, nation, to the progress of their environment.

Hence the moral steadfastness and patriotic human feeling of the scientists and research workers play a decisive part in the framing of the national science policy.

As has been said before, the work of the scientists and scholars is closely linked up with their social and cultural environment which, in turn, largely depends on the political situation created by the leaders of the country. This is one more reason why we shall devote the concluding part of this chapter to the relationship between science and politics.

## Political Leadership and Science—Statesmen and Scientists

This relationship in our days cannot be reduced to the creation of a social atmosphere stimulating the scientists and encouraging the progress of culture. In our age science has become capable of formulating a programme of rational social actions, although the carrying out of the actions themselves with a view to attaining definite targets continues to remain a political and governmental task.

The relationship between political power and science is a complicated problem full of contradictions in every country, particularly in the developing ones. Science should study the conditions of rational human action performed on the social level but it need not and must not take politically direct actions. Purposeful human action is partly a governing principle, a starting point for science but partly also a result of scientific efforts aimed at co-ordinating the discovered interdependencies with the purposes of action. The co-ordinating principles and aims as well as the results of research create a regular and permanent contact between scientific investigation and political activity.

In other words, the objective conditions of contact, co-operation and mutual control between the statesmen, the leading politicians and the leading scientists are present in the developing countries, but all contact, co-operation and mutual control evidently involve all kinds of difficulties and conflicts which can undermine mutual confidence.

The conflicts derive chiefly from the fact that the politicians and the scientists live and work in different media and therefore have difficulties in understanding one another's points of departure. The statesmen are reluctant to accept the more rational and more historical way of thinking of the scientists, their approach less dependent on interests and more deeply weighing the long-term consequences of actions. On the other hand, many scientists fail to understand the rules governing political action in the highest sphere of politics where the vital problems of the regime lie.

There are far-reaching contradictions in the way of thinking of the politicians and of the scientists concerning rational human (social) actions.

The politicians regard as rational such action or set of actions as reckon with the immediate and short-range effects, and endeavour to mitigate the possible undesired consequences with appropriate measures.

Yet, when viewed scientifically, an action reckoning only with the primary consequences is found to be but superficially or partially rational. Science wishes to take into account also the secondary and supplementary effects as well as the possible reactions. Hence, the establishment of the norms and the course of national action and the adequate determination of the moments when the correction factors should be applied need a longer period in the opinion of the scientists. They find it a naïve and primitive wish, sometimes coming from the government, to answer questions within a few days the thorough analysis of which would require months or perhaps years. The scientists become particularly indignant when the government asks them for a scientific justification of some prefabricated con-

ception. (Scientists of the second set are often inclined to undertake such tasks but the really outstanding ones refrain from them.) Since many politicians are capable of considering only the primary consequences of their action (which, nevertheless, have secondary and supplementary effects and even reactions involving unforeseen developments), they are often compelled to modify their original standpoint, thus causing discontent among scientists.

The politicians often look upon the scientists as overscrupulous and conceited people who fail to understand the bold conceptions of the political leaders, are afraid of action, think exclusively in the terms of their own discipline, are detached from the masses and have no sense of practice.

Who is right in this debate cropping up in almost every developing country? Can this conflict be solved or avoided on the level of practical action? The first and foremost condition of bridging this gap between scientists and politicians would be a mutual understanding of one another's way of thinking and spheres of action.

The scientists ought to understand that all politicians (including the best statesmen) necessarily think in categories of political power. The real politician or statesman looks upon power as a means to attain certain great political, economic and social aims. But it is common knowledge that it is not easy either to acquire or to retain this means, especially at times of major social changes such as are taking place in the developing countries. History knows, of course, of many politicians in whose hands power turned from means into purpose and have, for this very reason, failed to put into practice much of their original aims that had been supported by the masses. Obsessed with power, some even turned against their own former lofty aims.

Yet, on the other hand, history knows of honest and far-sighted politicians who initiated bold reforms yet lost power. The stake, of course, is high both for the regime and for the system since miscarried reforms are usually followed by the unlimited sway of reactionary forces.

Most deep-going economic or cultural conceptions induce substantial changes in the structure of society and power. This explains why the leading politicians prefer suggestions strengthening and consolidating their power. A leading statesman obviously works at the service of the entire nation, and only by performing this service well, can he keep his power steadfast and unshakable. It is impossible to maintain lasting power at variance with the leading layer that is meant to support it. Yet there is no doubt that the interests of the leading layer are not entirely identical with those of the rest of the nation. Therefore the leading politicians must act with circumspection whenever their measures affect the support of their power, i.e. the leading layer.

This makes it clear why the politicians are extremely cautious in questions relating to the sphere of power.

But some politicians, while being very reluctant to act in questions quite obviously concerning power, would display an "appalling" courage in their actions relating to economic questions. Bold actions in the economic sphere seem to give

them a kind of subconscious compensation for their caution in matters of power. Yet it is important to remember that in politics there are always more unforeseen factors than in economy, and this is why the norms of reasonable action in politics are generally less exact than in economy. (For instance, the balance of the internal political forces is closely linked with the situation in world politics. If the latter changes substantially, which very seldom can be foreseen, the internal political power relations also undergo radical changes.)

At any rate it is obviously wrong for leading politicians to reckon exclusively with the short-term consequences of their actions. In both politics and economy certain steps provisionally or seemingly strengthen power yet in the long run are liable to undermine its foundations. It is, therefore, important for the scientists to understand the laws valid in the political medium, yet it is also important for the politicians to learn from the scientists and from science how to weigh the long-term consequences of their actions. The approach of the scientists to politics must, however, not entail their adopting the points of view and action norms of the politicians. The idea is that the scientists should understand these, and must not consider as primitive or wrong the views and action norms stemming from the objective laws valid in the political medium.

There are many kinds of politicians. Beside the statesmen (very rare) and the specialists (to be found in an increasing number in the various governments), there are many politicians whose claim to power lies mainly or only with their ability of impressing and persuading the masses. The significance of such abilities must not be underestimated, especially in countries where economic measures rapidly raising the living standard of the masses are hardly conceivable. It would be good, however, if the politicians of this type had some specialized knowledge, although this requirement in the developing countries seems to be premature.

What the politicians (those in the government, in the first place) are called upon to understand is that without the co-operation of the scientists they are unable either to sum up or to solve the intricate problems of social and economic growth. Science in our days not only recognizes, discovers and publishes its results but, as has been said before, is able to draft programmes for rational social actions. This fact casts an entirely new light upon the relationship between the political leaders and science: science now can work out action norms which are indispensable for the governments in their task of controlling society and economy. This explains why so many scientists all over the world are engaged as consultants or advisers to leading statesmen. On the other hand, there is a growing number of programmes whose best and most expedient (most co-ordinated, safest and least sensitive) variants of implementation are worked out by teams of scientists. Considering these phenomena—encountered in the most advanced and the least developed countries alike—we hope that politicians and scientists come to a better understanding and will be able to assess one another's viewpoints on closer terms.

Symptoms at variance with these positive phenomena can also be encountered in the society of the developing countries. The chief reason is the fact that there



are still many research workers and scientists who live isolated from the question of public life and look down upon the politicians. Such scientists are out for finding phenomena for which they can blame the politicians and are always ready to dispose of them in a few contemptuous remarks. This attitude is, in many respects, the outcome of the backwardness of the socio-economic structure. The representatives of this attitude are unable to recognize the significance of public life and are inclined to evolve a certain scientific aristocratism.

For the future of the developing countries and for the acceleration of their growth it is of the greatest importance that both the politicians fighting for the noble aims of social and national progress and the scientists following similar aims should learn to co-operate. To achieve this, both parties must make serious efforts. By collaborating with scientists the leading statesman may obtain proposals and advice of a wider horizon and for a longer period than the civil servants (including those ranking higher) can offer. The scientists, on the other hand, should understand that, amidst the high tensions of economic growth, they can serve their people and nation only through such governments as are or can be made progressive. There is no doubt that the fate of the developing countries is decided in the sphere of politics. But science can make positive contributions to the processes and phenomena developing in the political medium.

## The Role of Social Institutions in Economic Growth

As has been pointed out before, the traditional political and social factors exert a tremendous influence on contemporary life in the passive sense. This influence consists essentially in an obstinate clinging to the inherited social institutions, customs and norms, in an instinctive protest against their violation or annihilation. Thus the traditional political and social forces cannot be counted on to accelerate economic growth. This can be started only by such forces as are substantially more progressive than these, which wholly or at least partly understand the requirements of the age and of national development. This understanding finds an expression in the political and social conception of the new forces, in the organization principles applied to the old society and then penetrating it, and in their more rational action norms. The national and social dynamics, the efforts for launching and directing growth may be represented by various institutions of which the political parties and the army have played the most important role in the past decades in the developing countries.

The creation of the political, social and institutional conditions necessary for launching economic growth begins with the seizure of power by a political party or movement, welded together in the struggle for independence, or else by the army led by radically minded officers. Power can be taken over in many different ways and assumes different forms: for instance those coming to power proclaim new dynamic aims—which are otherwise in keeping with the conception of the leading political party or of the radical officers—transform the inherited state apparatus, and produce new leaders for the country (mostly political or military persons who have distinguished themselves in the fight for independence or for the seizure of power).

This is the visible form in which the transformation of the social and economic system and the establishment of the institutions promoting economic growth begin.

### The Role of the State in Accelerating and Feeding Economic Growth

The state, as has been pointed out several times before, has a decisive role in the transformation of the social and economic system and in the acceleration of economic growth.

However, the state apparatus itself is unable to produce the driving forces co-ordinating the targets of economic growth and the daily voluntary activities of the masses (exempt of administrative constraint) to attain them. Only the dynamic institutions (political parties, progressive officers, etc.) can produce these driving forces.

Let us make it clear at the outset that we do not wish by any means to engage in considerations of political science when analysing the problems of economic growth.

Nevertheless it should be remembered that the state is the product of class contradictions, and every state is the depositary of the interests of the ruling class, although this statement must not be interpreted unilaterally or be overdriven. In the course of development the ruling class, either voluntarily or under the pressure of power relations, enters into alliances with some other forces. On the other hand, the state becomes alienated in a certain sense, i.e. develops its own interests and viewpoints. This is so partly because within the ruling class there arise certain differences which manifest themselves in the daily activity of the state, and partly because the state must take into account, in one way or other, also the interests of the other classes since the members of these also possess a certain knowledge, organization and ability. At times of particularly strained political situations (for instance, following the seizure of power or when class interests clash openly) the state may consider exclusively the interests of the ruling class. Yet in normal periods the affairs cannot be run in this manner since

a) the ruling class may not be able to maintain its power alone, it must enter into alliance with some other class or force following at least partly similar aims,

b) power conflicts arise within the ruling class and affect the activities of the state,

c) in order to consolidate the internal situation, to accelerate economic development and to advance culture, the state must see to it that all loyal citizens and organizations should take an active part in the great cause of building up the country.

In this sense, the state has an intermediate function of overcoming the conflicts within the ruling class, on the one hand, and of co-ordinating the interests of the ruling class with those of the other classes and layers, on the other.

Yet in the case of the developing countries what happens is not that the ruling class simply shares its power with others, but that power can be acquired and retained only on the basis of a wider alliance of classes or layers. Within this alliance there is no dominating class (this statement, naturally, applies only to such countries in which the class relations have not yet developed), what is more, part of the "classes" have developed without or with hardly any relation to the ownership over the means of production but rather with respect to power. (This phenomenon reminds us of the historical conditions in the irrigation societies of Asia.)

This means that the intermediate function of the state is much stronger in the developing countries than in any other types.

The role of the modern state is, finally, enhanced by the fact that, once formed, it is compelled to deal with a greater number of more intricate problems than are the states relying on century-old traditions. And it must solve this task with relatively little collective experience to its credit and amidst a serious shortage in qualified experts.

It is the task of the new state to create and propagate the norms of social behaviour required by the new conditions and aims, and have them accepted. The successful implementation of this task has a paramount importance for the stability of the new system. The new power relations and social aims radically transform the social system of moral categories and the relevant norms of behaviour. Certain elements of the old system of social values contradict the new system and therefore must definitely be discarded through proper argumentation. Other elements are neutral and put no obstacle in the way of creating a new atmosphere necessary for economic growth. The diffusion of the new system of values and behaviour norms depends on the progress of the social and economic circumstances; but the values and norms of a neutral character should not be deleted from the consciousness of the people before the new ones are rooted deep enough. Otherwise certain gaps will develop in the evolution of social ethics. These "ethical gaps" have a destructive effect because they result in cynicism, indifference and relativism. If these attitudes get the upperhand, they cannot be eliminated after the development of the new system of values either, i.e. part of the citizens will refuse to comply with the new norms. This situation requires the application of legal constraint (a set of deterrents) to consolidate the new morality.

The dynamic institutions, such as the political parties and the mass organizations, can give an intensive support to the state in consolidating the new norms. The power of these institutions lies with their ability to diffuse the new ideas and tenets by means of persuasion. The situation is more difficult when the army is the only legal dynamic institution since the military means and methods are necessarily, by the nature of things, more rigorous than those of the civilians. This confirms the statement made in our analysis of the power-political relations of the developing countries, to wit, that the army at the head of the state must set up certain political institutions for the support of its regime.

In a multisector economy the new government must engage in a wide-scale economic activity from the very first moments of its existence. The economic functions of the governments in the developing countries may be manifold:

- a) the state should take the initiative in economic growth by defining the social aims of development, by securing most of the growth factors and by creating an economic environment promoting growth,
- b) in compliance with the social aims of economic growth, the state co-ordinates the activities of the economy,
- c) the government creates state-owned enterprises, factories and farms, i.e. acts as an entrepreneur and as owner of part of the means of production.

## Dynamic Political Institutions—Political Parties and the Army

These activities of the government are shared by the dynamic political institutions. Let us examine where the functions and practical activities of these institutions and of the state are linked together or come into collision.

The leading political party organizes its membership and sets up its leading organs in the spirit of a coherent political conception. On the other hand, the best representatives of the leading political party are members of the parliament (if any), depositary of the national sovereignty and the people's will, invested with the legislative power. Finally, the top leaders of the party occupy posts in the government and direct its activity.

In the case of a military regime, the leading officers constitute a separate body: Revolutionary Council, National Council, Operational Board, etc., to which the government is subordinated.

Hence the political party embodying the contemporary development aims and organizational forms has two major advantages over the military leadership in the building of the new society and economy:

a) the members have joined the party voluntarily and by conviction; therefore they profess a homogeneous, coherent programme in the decisive questions of national economic development,

b) the party is capable of convincing the great majority of the nation of the necessity of certain actions making part of a coherent programme, although

– some individuals and organizations participating in the actions have not yet recognized the inevitability or the advantages of the actions,

– the economic advantages direct or potential, deriving from the actions will materialize only later, i.e. the energies invested in the actions assume temporarily the form of "sacrifices".

It is needless to emphasize that the political parties enjoy these advantages only when they have won and can uphold the confidence of the great majority of the nation. Once a political party submits to bureaucratism, i.e. issues instructions and commands instead of convincing the masses, it makes itself superfluous, since the state is much better up in issuing instructions and the army is more competent at commanding. Nor can a political party fulfil its functions if it loses credit with the masses, since the ability of conviction is not a magic device or a rhetorical feat but derives from concrete daily activities.

So the political parties, through commissions, negligence, errors or moral deviations may lose their advantages over the army.

This, of course, does not mean that the army, together with the state apparatus but without any political organization, is capable of ruling a country. Persuasion of the masses and their voluntary undertaking of sacrifices will be indispensable in the developing countries for many decades to come. Although the army may seize the power alone, it cannot solve the task of economic growth, without the collaboration of other forces. It needs the support of the intellectuals (not only

of those serving in the state apparatus), of the economic organization and of the simple workers for solving the manifold economic tasks ahead. This explains the great importance of the method of persuasion prompting the individuals to act of their own free will in accordance with the common aims.

### Dynamic Political Institutions and the Legislative Power

The army will, then, also need political institutions to establish contacts in democratic forms between the leadership and the large masses.

The leading political parties (chiefly in a one-party system) and the councils of the leading officers of the army (in the case of a military rule) acquire a substantial part of the legislative power. This manifests itself in two different forms: the party decisions are binding upon the members of the party, including those sitting in parliament, on the one hand, and the parties take decisions in matters directly relating to the government, on the other.

The individual responsibility of parliament members is liable to become blurred since the constituents give their votes not to individuals but to political programmes. (An exception to this rule is Latin America where "*personalismo*" still flourishes.)

But the activity of the political parties and/or the military councils does not terminate by acquiring a great part of the legislative power since the dynamic institutions have a considerable impact also on the executive power.

This influence may assume various forms.

The leading bodies of the parties or the military councils make decisions in many questions concerning the administration of state life, and these decisions are binding upon all members and leaders of the government, of executive authorities and local councils who are members of the party or of the military council.

The extension of the activity of the political parties and of the military councils to the domain of the executive power—the outcome of a process of many decades which has not taken place in the developing countries—derives from the recognition that the legislative power has lost some of its importance whereas that of the executive power has increased. It follows that state, social and economic life can no longer be directed exclusively (or primarily) through the legislative power.

In a one-party system or in a state headed by a military council the problem invariably arises how far the activity of the party goes and where that of the state apparatus begins. It would, naturally, be a mistake if the political parties or the military councils wanted to perform the functions of the state apparatus or reduce them to mere formalities. It would be another mistake if the political parties or military councils refrained from governing the state "from within" (that is, by making use of their positions in the state apparatus) and refrained from the state apparatus "from without".

When trying to find the points of contact and the expedient forms of co-operation between the parties, military councils and the state apparatus, it seems reasonable to proceed from the different character and possibilities of these institutions.

### Dynamic Political Institutions and the Executive Power

The political parties and the military councils should include creative, dynamic and daring minds thinking in terms of progress and change. On the other hand, the apparatus of state administration, by its very nature, establishes lasting norms of action for the society and for itself and makes its best to stabilize them. It generally relies on the conviction that the norms established are the best possible and need no modification. At any rate, every change in a norm previously established by the state apparatus is regarded as a danger to its prestige; and what will happen to the world if the citizens have no respect for the civil servants? The lowest ranking official is convinced that he is the best expert in the sphere of affairs he is handling; he would, at best, admit only that the general horizon and knowledge of his boss may be wider. And obviously, if the state apparatus is convinced of the correctness of the norms it has established, it will openly give voice to its misgivings regarding their changes coming from outside.

On the other hand, the political (or military) leaders, in spite of their possible human weaknesses and shortcomings, think in terms of masses, events and possibilities and thus they can never regard any norms, including the new ones, as definitive. Since bureaucratic administration never thinks in terms of masses and human relations, it becomes easily alienated in a world which has created it and which it endeavours to regulate.

Certain negative features of bureaucracy should be ascribed not so much to the faults or the unfitness of some persons but rather to their positions and functions, and even to the operational laws of bureaucracy itself. In other words, creative and dynamic initiatives cannot be expected from the administration, they must come from outside.

On the other hand, it is also quite clear that if a political party or a military council wishes to direct the activities of the executive power energetically, it will find it indispensable to build up a new executive apparatus. Failing to do so, the leading political institution may soon find itself to be limited to dealing with "fundamental principles" and major interrelations, i.e. to act as a legislative power. In this case the formulation of the fundamental principles as norms of action and their implementation will rest with the executive power alone.

It should be stressed, however, that any over-size and "over-organized" party apparatus takes on invariably the same properties as the state administration itself: it begins to create and impose stable norms. This results in contradictions between the way of thinking and endeavours of the real leaders and creative minds of the party and the operational practice of its apparatus. And these contra-

dictions may lead so far as to turn the party apparatus into an obstacle to the implementation of the correct ideas of the creative minds representing the substance of the political parties.

It logically follows that it is not expedient to develop an apparatus which by its size may prevent the party or the military council from fulfilling its fundamental creative functions.

We have analysed the state and party apparatus to clarify the relationship between these institutions in the course of economic growth. Their virtues and possibilities, as well as their weaknesses and shortcomings, spring from the same stem. In the case of good co-operation the party can hold up its fundamental function, i.e. remains a creative and initiating body, while the state apparatus ensures the unity of actions in planning and execution, co-ordinating the interests of the various organizations and groups. Yet, also the state administration must refrain from acting in others' stead and try to take over functions due to the party, or to the economic organizations. The latter statement applies not only to the organizations and individuals outside the state sector, but also to the state enterprises which are meant to act in their proper sphere with maximum independence and responsibility.

From the relation of the activity of the party or military council to that of the state apparatus it follows that the power struggles outside the party affect the state apparatus, too. It is much easier to agree upon fundamental principles and general conceptions — which can be interpreted in different ways — than upon a programme of concrete action. The interests usually clash in such programmes and in the methods of their implementation. Hence, the contradictions outside the party accumulate in the state administration.

### Power Struggle within the Ruling Political Party

Conflicts within a party are obviously inevitable since the organization of a ruling party generally comprises the representatives of different classes and different interests, including the exponents of both the traditional and contemporary social and economic formations. Still, the maintaining of the party's unity—born in most cases in the period of anticolonialist struggles—is also a precondition of the acceleration of social and economic development. In this connection let us remember that

a) the neocolonialist danger is still imminent, and an internal dissension (e.g. a split, or the discontent of the shunted political leaders and similar factors) creates favourable conditions for imperialist interventions,

b) in the course of building up a new state and economy the various layers of the population, beginning from the rural tribal communities to the workers of the contemporary big factories, from the artisans to the university professors, should all be rallied in action. When unity dissolves, these extremely different and often contradicting elements fall asunder and may easily create social anarchy.



Some minor groups may, from time to time, detach from the central unit, but this process must not assume exaggerated proportions. It would be fatal if it were determined by the outcomes of individual rivalries rather than by the changes in objective circumstances. The political leaders must by no means try to suppress the different views in an administrative-bureaucratic manner. Differences within the party as a unity are objectively inevitable, and the real interests can never be co-ordinated by suppressing the possibilities of advocating the opposite view. The power of the party does not consist in prohibiting the free expression of different interests and opinions but in its ability of solving them by compromises in a unity of actions on the national-social level. The appearance of contradictory interests and views within the party does not weaken but strengthens the position of the leadership.

In the struggles for power fought within the political parties or military councils the various state posts are often at stake. As a consequence of struggles for power—especially if the power relations are more or less balanced—certain important economic or social reforms may often come to a deadlock. The struggles for political and state positions are fought in the parties in a more open form and tend to remain on the ideological level; they are likely to take more disguised forms in the state apparatus where the discussions seem to run about special institutional and administrative problems. When the struggles for power hinder the solution of important objective problems, the leadership must not hesitate to interfere and come to decision.

The political struggles are not fought within the "time co-ordinates" and considerations established by the nature of the economic processes and interrelations. Therefore, when in a country two political concepts are in conflict (for instance between a progressive ruling party and a reactionary opposition or the other way round), it is more expedient to wait until the power relations allow action corresponding to the progressive ideas or at least approximating them. The fight for positions within a given regime must be viewed in a different light since the postponement of the necessary reforms or measures will be ascribed by the masses to the regime as a whole, which is not illicit or unjustified since struggles for power are inseparable from the regimes. One of the criteria of their vitality is that they maintain their capacity of action even during such struggles. And it should be remembered that, especially in a centrally directed economy, a postponed economic problem never gets solved by itself; it will crop up later under more adverse conditions.

One of the great advantages of a centrally directed economy is the possibility of a more purposeful and planned distribution of the scarce development energies. But this advantage does not assert itself unless the economic problems are solved at a rate required by the nature of the economy. In other words, the speed of the economic decisions cannot be adapted to the operational rhythm of the party or state organs.

The participants of political struggles within the regime should realize that a somewhat improved personal or group position cannot offset either the objective

losses or the loss of authority, of the regime as a whole in the public eye. This is why the leadership must interfere in questions whose solutions have come or are likely to come to a deadlock owing to manoeuvring for positions.

Sometimes, when the struggle for positions results in the postponement of essential economic decisions, losses of prestige of certain politicians become inevitable. In such cases the specialists who would sincerely promote the concrete affairs get disappointed in politics and politicians in general.

No one should conclude from this remark that we invariably side with the specialists against the politicians, as can be clearly seen from the foregoing. We do not contest the primary importance of the political power problems but we do distinguish between the problems of a given political and social system and the "points of honour" of individual politicians. In addition to this, I should like to stress once more that the central power commits a very serious mistake with respect to society and to itself if in its economic administration it fails to take into consideration the methods and terms required by the economic processes.

We have so far analysed the social institutions embodying power as well as the changes and structural shifts in their relationship under the conditions of a rapid social and economic transformation. The function of power — with due regard to economic growth — can be summed up in inducing the economic organizations and individuals to act in compliance with the economic conception, i.e. the national economic plan.

### Means and Limits of the Central Power to Influence Economic Processes

The fulfilment of these functions largely depends on the means and possibilities available to power for attaining the aims.

Let us first note that the actions of the economic organization and persons pursuing economic activity can only be influenced within certain limits. These can be summarized as follows:

- a) the economic attitude favoured and perhaps stimulated by the government should be in harmony with the interests of the acting organizations and individuals, or at least these interests must not be explicitly violated except in very strained situations;
- b) the economic resources available to the government are limited and cannot be supplemented permanently but their scarcity can be made less felt partly by political methods such as persuasion and partly by administrative measures aimed at a fair and reasonable distribution of what is obtainable;
- c) the young state apparatus—owing to lack of experience—is unable to implement too complicated influencing measures containing many different alternatives and requiring delicate distinctions.

When weighing the possibilities and the limits of the guiding activity of the government, let us realize that the young state apparatus has to cope with a host of

problems, such as balancing the budget, taxes, granting priorities, credits and favours, distributing productive and infrastructural investment, ensuring the balance of payments, etc. That is why a government endeavouring to direct the economy must not undertake minute tasks.

The exaggerated centralization of the economic decisions invariably results in the deterioration of the efficiency of central direction. The correctness of economic decisions will suffer from lack of sufficient time to prepare and weigh them, the proposals coming from experts will not contain a sufficient amount of alternatives and will fail to cover the secondary, derivative and supplementary requirements of economic action, and so on. Since the central organs are overlaid with minor problems, the really important economic decisions will suffer long delays. Thus, interference in some processes comes late and the assigned resources turn out to be already insufficient. Finally, in the case of exaggerated concentration of decisions, a vast bureaucracy develops as an isolation layer between the acting economic organizations and the highest instances of economic leadership, hampering both the communication of proposals made by the former and the implementation of decisions taken by the latter. Obviously, when establishing the central spheres of competence, the optimum levels at which the various types of administrative decisions can be performed should be considered. To mention an exaggerated example; it is a good thing to have a Ministry of Public Health (as most developing countries have) but it would be absurd for the ambulance cars to depend on the permission of the Ministry to transport a patient to the hospital.

The economy in most of the developing countries consists of many sectors, beginning from subsistence economy up to monopoly undertakings in the hands of the state or of foreign capitalists. It is quite obvious that the state has not got equal authority over all sectors. In many cases, it cannot do more than shape the economic environment in a way to influence the economic units according to the aims set in the general concept of economic growth.

Even the state enterprises must have a certain degree of independence within which their leaders can develop their creative abilities. If the state all too frequently infringes upon their independence, the leaders will lose the feeling of responsibility as well as their creative and combining faculties. All this invariably leads to a lower economic efficiency. Under the impact of market impulses, for instance, the leaders will not act adequately but wait for instructions from their superior.

Owing to the general shortage of qualified manpower the carrying out of the tasks of state administration and economic direction will, for long decades, remain a bottleneck in the developing countries.

Hence, when determining the system and methods of economic leadership all these limiting factors should be considered. It logically follows from them that leadership must not be overcentralized and that its methods should be evolved from the factual situation and processes of the economy.

But beside its limits, economic leadership has also its requirements. Below the minimum level of these, there is no centrally directed economy. Two conditions determine the minimum requirement (i.e. the conceivable lowest extent of central

direction). The government must reserve the right of decision making in such questions as

- have an intensive impact on the position of the political power and the various layers on the nation,
- can be weighed and solved for the benefit of the whole society only at government (national-economic) level.

In the absence of both or any of these conditions there is no centrally directed economy or it exists only nominally.

These two fundamental requirements evidently involve a set of partial requirements which could be summarized as follows:

a) The government must create a social environment promoting economic growth. In other words: such social and political reforms are needed as make people interested in economic growth and co-ordinate the system of inherent social values (the criticism of the individual by public opinion) with the requirements of development.

b) The government must assume a determined attitude comprehensible to the organizations and individuals affected in questions concerning the various sectors, including the foreign enterprises. In a developing country this means that the government must collaborate with many sectors in the interest of economic growth. The otherwise desirable efforts of a progressive government to accelerate the growth of the state sector should not involve the slowing down of the inner dynamics of the other sectors. The development of the contemporary sectors will, obviously, change the present distribution of manpower.

c) The government should promote the exploration of the natural wealth of the country, ensure for the geological mapping the necessary funds and research capacities.

d) It is the government's task to create the general conditions necessary for a rapid rise in agricultural production, including the construction of irrigation plants, the creation of an adequate credit volume, the improvement of the infrastructure including education.

e) In order to increase accumulation, to extend the domestic market and to impose social justice, the state should secure the equitable distribution and redistribution of incomes.

f) In the spirit of an expansive financial policy it is the duty of the state to control the currency circulation and the inflationary tendencies. The improvement of the taxation system is naturally included in the notion of expansive financial policy.

g) The government should follow with special care such economic measures as may affect the standard of living of the population. With the help of the available statistical organization it is necessary to ensure a periodical representative observation of the living standard of the various social layers and the different regions. The standard of living changes not only under the impact of direct measures but also under the influence of the various economic processes (inflation, shortages on the market of consumer goods, etc.).

h) It is the task of the government to co-ordinate the educational system with the requirements of economic growth, to keep an eye on the supply of the various sectors of economy with qualified personnel. In addition to this, the trends in the manpower situation should be analysed to obtain a clear picture of, and to be able to influence, the flow of manpower between geographic regions and economic sectors.

i) It is the government's task to conclude economic, trade and credit agreements with foreign countries, to investigate the effect of these agreements on the domestic economic life and to see to it that the conditions agreed upon be in keeping with the international norms in this field. In order to secure the equilibrium of the balance of payments the state should regulate the volume and structure of imports.

j) The government should establish the purchase price of agricultural products destined for export at a level enabling the producers to expand production in compliance with the demand on the internal and the external markets.

The national economic plan, as a coherent economic conception, guarantees the implementation of these partial requirements deriving from the two fundamental conditions. When preparing this plan, the requirements mentioned above should be carefully weighed as to their importance related to one another and to the principal aim, i.e. economic growth.

In the plan period, i.e. in the course of implementing the coherent conception of economic policy, many unforeseen developments may arise, resulting sometimes in disequilibrium. Consequently, imports have to be increased or exports decreased, the return rate of the investments may turn out to be less favourable than expected, elemental calamities may hit the country, and even political shifts, changes or turns may take place never even guessed by anybody.

That is why it becomes necessary from time to time to review and correct the aims and means of the original conception of economic policy. The corrections should be performed every year, even though no spectacular changes have occurred in the economic and political life.

Considering that the achievements of agricultural production fundamentally influence the economic processes of the year, the control and the corrections are most suitably performed at the time when the amount and quality of the harvest can be reliably predicted. (Appropriate signalling services ensure, as a rule, a pretty long foresight; hence, it is not necessary to wait with these important decisions until the last ton of the principal crops is harvested.)

### Preconditions of Effective Economic Leadership

The government cannot discharge its wide-scale economic tasks unless

- a) the political power is comparatively stable,
- b) the state power is comparatively coherent inside,
- c) the best experts of the country are invited to take part in the preparation of the decisions.

The first condition is, naturally, the most intricate one. Is it possible to secure a stable political power under the circumstances prevailing in the developing countries? An unstable government cannot be called upon to think in terms of long-range economic conceptions. Yet without this there can be no economic growth.

One thing is certain: the political power can only be stable and lasting if the leaders in the government think in terms of long perspectives and share the daily cares of the people. The stability of the power is undermined if the living conditions of the leading stratum are raised high above the possibilities afforded by the general economic conditions of the country.

The unity of the state power (of the government) is ensured by the elaboration of universal conceptions and by adopting common norms of action to put them into practice. If there is no consent in this field, the ministries and the economic branches will follow their own conceptions. The economic development of a nation, however, is much more than the mere sum total of the activities performed by the ministries and economic branches. Thus, the elaboration of the universal conceptions must begin long before the ministries and economic branches have formulated their partial conceptions: it is the coherent conception and action programme of the government as a whole that must outline the tasks of the latter. Government practice relying on this recognition has a fundamental importance for economic growth.

When few experts are available, these problems cannot be solved in a satisfactory manner unless all the intellectual forces are mobilized to take part in the preparation of the decisions, in their discussion and implementation. A state apparatus having little experience is unable to analyse the problems in a manner permitting to settle them with full responsibility. On the other hand, new governmental methods are gaining ground all over the world since science, as has been pointed out earlier, is already capable of working out action programmes, too. In our age all political and economic decisions elicit an intricate pattern of effects, countereffects and resultants, and the possible outcomes cannot be predicted without a proper scientific preparation.

That is why it is expedient to engage the best scientists and experts, both at home and abroad, in the preparation of the economic decisions of major importance (including the elaboration of their possible alternatives) and in the establishing of the action programmes for their implementation.

Besides, if the elaboration of the universal economic-conceptions and of the various programmes of implementation are entrusted exclusively to civil servants, the leadership of the nation thereby reduces its own positional advantages. It is quite clear that without a thorough scientific preparation even the most brilliant leaders will fail to come to correct economic decisions. And if, beside the scientific backing, the time factor is also considered, it is usually found that—especially under a circumspect leadership—there is sufficient time to work out the economic conceptions and to prepare the economic decisions of major significance.

In politics the situation is different: the required speed of action often depends on the international events, and also the number of unforeseeable factors is

higher. Even if the situation is analysed most carefully and accurately, it may occur that some event in world politics essentially modifies the internal political power relations. To predict such international events would require the knowledge of such vast information, so many data, facts and correlations as cannot be made available today in the small and medium-size countries. Hence, in weighing and assessing the political questions the intuitive elements of decision making, such as political instinct, sense of proportion and presentiment acquire a certain importance.

### The Role of Financial Institutions in Economic Direction

Beside the government, the centralized economic organizations play a considerable part in building up the economic leadership. The most important among them are the banking institutions. In the chapter on financial policy we have dealt with their problems, and here we only wish to discuss one single problem of the relationship between the banking organs and the state apparatus. We start from the assumption that the state owns the bank of issue and one or two other major banks. (In certain countries the state owns about 50 per cent of the shares in most of the major banks, beside the bank of issue.) And in the chapter on industrialization we have pointed out that the state should also set up industrial (commercial) enterprises.

The problem arises how the government should direct the operation of the state-owned industrial plants. In many countries ministries are organized for this purpose, and these give direct instructions to the industrial enterprises. Under such conditions the direction of the enterprises gets divorced from the principle of material responsibility, and this involves certain dangers especially in countries where no significant economic and industrial traditions could develop and therefore the bureaucratic direction may lead to instructions not sufficiently balanced, disregarding rentability and economic efficiency, etc. In addition to this, new directing organs are to be set up making use of the scarce amount of available experts, which again results in further bureaucratism.

Therefore it seems to be more expedient to set up, for the direction of industry, a centralized banking organization which has a comprehensive knowledge of all processes taking place in home economy and disposes of the most important instruments of economic control, that is money and credit. This form of direction makes naturally, necessary for the bank in question to command experts well versed in the technicalities of industrial development.

These considerations are confirmed by the well known fact that of all economic organizations existing in the developing countries the highest level has been attained by the banking institutions. Consequently it may be hoped that this organization, which at any rate has much to do with industry in connection with financing, credits, interest rates, etc., will be capable of controlling industry without major difficulties. By assuming this new function the bank becomes responsible for the launching and credit supply of production. Specialized (agricultural, industrial,

commercial) banks are particularly suited for such functions. The problems of building up the banking organization, of its specialization and functions have been discussed in the chapter on financial policy.

As far as the organizations directly putting into practice economic actions are concerned, they will be reviewed in the chapter on the execution of the plans.

### Position of the Regional Power Factors in the Course of Economic Growth

This chapter cannot be terminated without tackling the problem of the local or regional organizations. The various regions within a country represent both political and economic problems in every state where the population is not homogeneous in its language and ethnic origin and where extreme discrepancies in natural and economic endowments, cultural and living standards can be found.

This is the situation in most developing countries. In Brazil, for instance, within the area encompassed by what is called the industrial triangle of São Paulo, Belo Horizonte and Rio de Janeiro, where about 20 per cent of the population is living, the per capita national income is ten times higher than that in the north-eastern regions.<sup>1</sup>

The problems are similar in India, Pakistan and in many African countries where the economic and cultural conditions of the coastal regions are much more favourable than those in the interior of the country.

The decentralization of power in these countries is required not only by the general principles of organization and other rational considerations; it is closely connected with grave problems and everyday tasks stemming from the relations of the different peoples, ethnic groups and tribes. It has been discussed at large what to do in the developing countries where the internal cohesive forces are not yet strong enough to overcome the extreme differences: whether to centralize or to decentralize.

A certain centralization is obviously indispensable in all new countries where the forces of cohesion are not sufficiently strong or are still undeveloped. Yet it is also evident that centralization must not be imposed in a bureaucratic manner, at the expense or against the will of the different regions, without creating the necessary preconditions. A particularly careful approach is necessary to the cases when a region living under better economic and material conditions tries to achieve centralization "at the expense" of the poorer provinces. In such cases the backward ethnic group or tribe will attribute its lower standard of living and economic backwardness to the measures and endeavours initiated centrally, under the in-

<sup>1</sup> In order to mitigate the growing social and political tensions the government has, during the past decades, actively interfered in the course of affairs in the interest of the backward regions. This interference was an action subsequent to events and of a secondary character since it was meant to counterbalance the disequilibrium created by factors arising spontaneously.



fluence of the other ethnic group or tribe, and will start defending their political rights, their language and economic positions against the central power assumed to be in the hands of the other group or tribe.

This situation tends to weaken rather than strengthen the state power. It seems, therefore, more correct to grant a certain autonomy to the provinces (ethnic groups or tribes) within which they may feel responsible for their own economic development. Thus the forces of cohesion between the regions should be strengthened by a better organization of their economic and cultural co-operation, by an internal integration of the economy, instead of using bureaucratic administrative methods. Economic growth tends to accelerate the internal integration by creating a growing number of institutions embracing the whole country, such as transport, communication, higher education and, most important, a national market of goods. An overdriven centralization outpacing this development assumes the existence of conditions not yet existing in reality and can therefore not strike root. Consequently, it will intensify, rather than mitigate, the ancestral mistrust between the tribes, a feeling implanted in them in the course of the past centuries. On the other hand by an internal integration the members of the different tribes get to know one another and co-operate in the implementation of common tasks. No one can tell the future but it seems probable that the tribes will develop into nations which may rally in one state voluntarily and on a federal basis. It is the task of the central government to promote this development.

Certain conflicts and frictions will, obviously, be unavoidable also in the future between the ethnic groups and tribes, but their extent has to be reduced and the factors eliciting them, eliminated. If these tasks are successfully fulfilled, a nation will arise from tribes of different origin, history, language and culture, united by the common conceptions of economic development.

But this process must not be enforced without due consideration of the actual conditions. The regional or tribal system cannot be excluded from the government as long as the economic contacts with the region or the tribe are in a rudimentary stage, the national market has not yet developed and as long as agriculture or any economic activity is carried on in primitive communal forms. (By primitive communal forms we understand the inherited order of ownership relations, distribution and the organization of production.)

The economic differences between the regions of a country play an important part in the process of economic growth.

### **The Territorial Allocation of the Development Plan in the Case of Heavy Tribal, National or Religious Differences**

Every development plan involves regional allocations and thereby changes the inherited social conditions and power relations.

The allocation of investments is influenced, beside economic and political considerations, also by the natural environment: the location of the raw materials

and the natural conditions of growing certain crops within the country obviously determine the regional distribution of the investments.

From the economic point of view it is more advantageous (within certain limits) to invest in the more advanced areas of the country, on account of the lower costs (the infrastructure needs comparatively less input) and of quicker returns. It is obviously cheaper to invest in the coastal districts than in the interior of the continent. But this again is true only within certain limits. If certain districts are given exaggerated preference, internal market relations will fail to develop in others and manpower will tend to migrate accordingly. Such disproportions necessarily lead to the isolation of certain regions from the flow of national economic development.

Two types of development patterns have so far been known in the backward areas within a given country.

In the advanced capitalist countries, such as the United States, the United Kingdom, France, Italy, etc., capital began to concentrate in the advanced areas, and the less developed regions had to content themselves with a lower economic level. This sent the manpower migrating from such areas to the advanced ones, rendering the development of the backward territories even more difficult. Obviously, young people with an enterprising spirit did not acquiesce in their fate and went to look for better conditions of work. This then involved the deterioration of the composition of labour left behind.

However, the events of the past decades, such as war and the building up of war industry, the increasing economic boom, the growing labour shortage and the essential improvement of agricultural productivity have greatly stimulated the development of backward areas in many countries.

As a contrast, the Soviet Union and Yugoslavia, for instance, from the very beginning of the acceleration of economic growth, have made great efforts to lure a considerable part of the intellectual and material energies from the more advanced regions of the country to the less advanced areas by allocating vast investments and partly also by paying higher wages, in order to step up their development. Naturally, the investments allocated in this manner are more expensive, less lucrative, and also the production costs of the plants are higher. Consequently, the national income rises slower than with more efficient investments, and the industrial export capacity also fails to keep pace with the rise in industrial production. The consequences of this phenomenon are less felt in the Soviet Union, since foreign trade has but a limited role in the economic life of the country, whereas in Yugoslavia, a country sensitive to foreign trade, these consequences have a greater impact on economic life.

But thinking in terms of longer periods, it will be found that new economic processes start in the backward regions, the norms of an industrial society begin to be accepted, sporadically though at the outset, the market expands owing to the increasing purchasing power, and the internal integration of the economy makes a real headway. This creates a sounder and more productive relations between the different regions.

But even the type of integration described here creates certain tensions since the population of the more advanced parts of the country must make sacrifices over a short- or a medium-term period to the benefit of others, and this is not an easy thing to do. This explains why it is of vital importance that the overwhelming majority of the population should profess social and political principles advocating the elimination of differences between people.

A country endeavouring to achieve a more equitable distribution of goods, incomes and knowledge obviously cannot adopt the capitalist pattern of integration. This would necessarily result in an increase of the extreme discrepancies and blatant differences inherited from the colonial period, a trend which the masses of the backward regions and the progressive-minded people would never endorse.

The second integration pattern is difficult to follow: the "equitable" allocation of investments on political grounds is relatively more expensive. In other words: the scarce material and intellectual means available cannot be used with a maximum efficiency because they must be invested in regions where implementation is more expensive, amortization is slower and operation costs are higher.

It follows that at the outset a certain combination of the two patterns are necessary and possible so as to achieve a gradual integration of the backward territories into the national market in the making.

This complicated task necessitates the productive co-operation of the central and local organs in the course of economic growth. The co-operation can be facilitated if the dynamic political organization (the political party) rallies the whole country in the spirit of coherent principles and an action programme.

Both the central and the local organizations should display tolerance, confidence and respect with respect to one another. Each region should be allowed to dispose of part of its resources and spend them in accordance with its own conceptions. It is of decisive importance to let the inhabitants of the different regions live according to their customs and traditions within the coherent state. Every ethnic group and tribe should be allowed to contribute to the new society and economy by its valuable traditions—part and parcel of the wealth of the whole nation.

This is the only way to induce the various ethnic groups and tribes to adopt voluntarily and gradually the whole conception of economic growth. If this is achieved, economic development will accelerate, and every ethnic group will be able—and this is of extreme importance for the future—to enter the new world without grievances, mistrust and resistance.

## CHAPTER 13

### Participants of Economic Life

In the previous chapter we have analysed the social institutions which play a decisive part in the formulation and execution of the rational economic actions starting from the macro-economic level. These institutions, embodying concrete power relations and endeavours, are created or transformed by the leading personalities possessing the political power. But the operating institutions become independent (alienated) to a certain extent from their creators. Where power is maintained with continuity, the process of alienation evolves slowly and gradually, while it assumes a dramatic pace in the case of a sudden shift in power relations.

Slow or fast, the process of alienation can be traced back to several factors of which we shall mention the most important ones:

a) The existence and the operation of a given institution are linked up with a multitude of human interests, especially those of its leaders. These, though not directly contradicting the interests of the highest exponents of power, are not identical with them either. The multitude of interests changing under the impact of economic growth modifies both the content and the form of these institutions.

b) The institutions have their own statutes which in many respects are independent of the original intentions and endeavours which has created them.

c) In the course of its daily activity, a new or transformed institution establishes contacts with others, with the result that the rules and norms governing its operation get modified.

d) In the course of economic and social development the political power relations undergo certain changes resulting in the increased or decreased significance of a given institution. In the case of sudden and substantial changes (change of regime) it may also occur that certain institutions are played up against their own creators, as can be confirmed by more than one tragic or ironic example taken from history.

It follows from the above considerations that we do not attribute to the institutions any kind of "magic force". On the contrary, we say that they invariably express the endeavours of the ruling classes or groups having common interests yet—in their capacity of organizations—they may be longer-lived than the political regime that has created them.

The institutions are operated by persons acting in compliance with their social determination, endowed with different abilities and taking more or less into account the interests of the community.

## Political Actions Evading the Institutions

In a country where institutions are advanced and deeply rooted, the political power is almost impersonal since it is acting through the medium of the existing institutions. Hence the leading personalities need not always come to the fore. When there is a change of regime the new political leadership sets up its own new institutions or transforms the old ones but, this process terminated, it resumes the methods of indirect actions. Lenin referred to this attitude of the new power as "revolutionary legality".

It may also happen that the political leadership lays up the existing or the new institutions, dooming them to formal activities, in other words, the leadership adopts the method of direct actions. This is the case of personal power when the political leader reserves the right of decision for himself and creates, by every new decision of his, new norms which the old or new social institutions are compelled to accept as legal guidelines.

The situation in the developing countries is different since there the institutions have not yet developed to an extent permitting their proper functioning and they are based on uncertain power relations. New institutions are to be created, new norms and new human attitudes are to be made universally accepted. In such circumstances it is impossible to rule "impersonally", that is, exclusively or chiefly with the help of the existing institutions. This explains why the leading political personality comes to the fore. It should also be considered that the overwhelming majority of the population does not accept the new institutions or fails to understand their functions. Hence, the population can but slowly and with difficulty be prompted to politically and economically correct actions through the institutions.

Therefore, the leading personality embodying the new power plays a decisive, personal part in almost every developing country. A wise leader will, obviously, try to shorten this period and to limit the means of personal power to the necessary minimum. In this respect the status of the institutions and the popular feeling towards them are decisive factors. The people surrounding the political leader do not reflect, by the nature of things, the popular feelings. The exaggerated use of the means of personal power may sometimes be dangerous, creating discontent or frustration and may raise to the maximum the social tensions which are anyway high enough.

Personal power within the leading layer involves more serious dangers than this. The leaders heading the institutions neglected by the personal power feel that the authority of their institutions and their own prestige are threatened. The personal power then finds support against the dissatisfied leaders in its own narrower circle and in the armed forces; its isolation from the people and from its former political friends becomes complete. Under similar conditions correct political and economic decisions become practically impossible since the real political and social power factors and interests are not confronted in decision making.

This short disquisition is meant to outline the institutional and social background influencing the decisions and actions of the participants of economic life.

## Participants of Economic Life under Capitalism

Who should be considered participants of economic life in a developing country and what is their impact on the process of rational economic action? Let us first note that both the participants and their weight in national economic actions change as functions of the character of the social economic system and of the general advancement of the economy.

According to several bourgeois economists, particularly Schumpeter, the central figure of capitalist economic development through several generations was the capitalist entrepreneur. This means that the level of rational economic action in capitalism was then and has since been the micro-economic level. Schumpeter stresses first of all the ability of the entrepreneur to introduce new combinations into economic life. Namely, intent on outstripping his rivals (by which he hopes to acquire extra profits), he deviates from the trodden path and turns against his surroundings. Technical development is undoubtedly one of the driving forces of economic growth and the entrepreneur, taken in the Schumpeterian sense, introduces new technological processes and methods into production, manufactures new commodities or brings the old ones up to date, opens new markets or reorganizes certain domains of industrial activities. The Schumpeterian entrepreneur was, for long decades of capitalist development, an objectively necessary figure in the technical and economic progress, in spite of the fact that he exploited his workers in compliance with the laws of capitalist society.

It is, however, quite clear—and in his recent works Schumpeter himself had adopted this view—that the entrepreneur, as a creative figure promoting the development of economy and technology by his personal initiatives and combinations, was a necessity only through a few generations. Today science has rendered classifiable, predictable and suitable for studying many such things and correlations whose evaluation used to be possible in the past only by invention, by individual abilities and bold improvisation. On the other hand, capitalist economy has become extremely complicated, the sphere of interactions and mutual dependences has widened and, consequently, decisions relying on mere inventiveness can no longer be correct even on the micro-economic level. Thus the entrepreneur in the Schumpeterian sense is a figure doomed to extinction even in the advanced capitalist economy, gradually losing his importance in an economy rationalized and centralized with the help of science.

Thus, conditions have substantially changed since the “golden age of enterprising”. The system of rational economic actions in the advanced capitalist economy has changed in two directions:

a) owing to the development of monopolies, to the growing number of interdependences and to the integration embracing more and more countries, the economic decisions made on the micro-economic level must take into account the macro-economic consequences of the processes they induce;

b) by its growing economic activities the state markedly influences and coordinates the economic decisions taken on the micro-economic level.

## The Plane of Rational Economic Action

Beside stressing the importance of these changes it should be remembered that, on account of the prevailing ownership relations, the characteristic sphere of rational economic actions in the advanced capitalist economy is still micro-economy.

On the other hand, in the European socialist countries macro-economy has become the characteristic sphere of rational economic actions. In these countries the capitalists in their time were unable to achieve rapid economic growth and industrialization. Following (or partly parallel to) socialist transformation, a centrally directed planned economy came into being in which the economic decisions of major importance are taken in compliance with macro-economic considerations, i.e. with the interests of the national economy as a whole. Yet in the first period of development the macro-economic approach suppressed even the objectively necessary micro-economic considerations, and the disregard for commodity and value relations and for the market has slackened the ties between macro- and micro-economy.

In order to overcome the difficulties deriving from this attitude the European socialist countries have started to introduce economic reforms by which, under the impact of an economic environment created in keeping with the interests and targets of the national economy, micro-economy will act on its own, i.e. will produce with regard to demand on the market, invest from its own funds or credit, and endeavour to increase its net income. The state, naturally, continues to own most means of production but will act as an owner who does not interfere directly in the affairs of the enterprise and gives no detailed plan instructions.

Within some decades this will create a harmony in the socialist economy between the economic actions on the macro- and micro-economic levels.

The determination of the fundamental aims and proportions and the creation of an economic environment suitable for their implementation will remain in the hands of the central organs, but the concrete decision making within the given environment, the taking of risks and carrying out actions will come under the competence of enterprises.

To sum up, when the reforms are carried out in these countries the establishment of the economico-political conception and the shaping of a suitable environment will invariably take place on the macro-economic level but the concrete economic actions will be decided on in the sphere of micro-economy.

The economic situation of the developing countries is unlike either of these types. There have been no home generations of entrepreneurs since the economic life of the countries was directed by foreigners. Also, the inherited economy (in its state before the beginning of economic growth) is rather weak, i.e. there is no lively, expansive micro-economy. Finally, there are many different sectors in the economy, including the economic formations subsisting from pre-capitalistic times, and these would have to engage in activities closely related to one another and complementing one another on the macro-economic level.

Under such conditions development must be started, as has been stressed several times in this monograph, from the level of the national economy.

### Can the Entrepreneur Be the Central Figure of Economic Action in a Conception Based on Macro-economy?

One of the principal aims of macro-economic efforts is to create a micro-economy with an adequate expansion potential but without making the entrepreneur the central figure of economy. In an economic development induced from above, macro-economy is not purely the abstract sum total of the micro-economic actions but a real and living factor of economic policy ordinating decisions and actions encompassing the whole movement of economy. Compared to this comprehensive economico-political conception, the entrepreneur represents a more primitive or "provincial" aspect. (Let us make it clear that by "entrepreneur" we mean here not necessarily a person who is "free to undertake" in every respect, only one having specific kinds of knowledge and abilities and willing to undertake risks. Such abilities and readiness to take risks are indispensable in all kinds of economic systems, including advanced socialism.) The entrepreneur could become the central figure of economy only in countries where economic development started "from below", that is, in the sphere of micro-economy, and where the state had no other task but to eliminate the internal and external obstacles to the free evolution of enterprising.

From the fact that entrepreneurs taken in this sense are lacking, different conclusions may be drawn. According to some western economists, a new layer of capitalist entrepreneurs should be educated in close co-operation with foreign capital. According to this view, the foreign capital creates plants and enterprises and gradually draws into their work the home entrepreneurs who, after a certain time, will take over the factories and plants. Needless to say, the home entrepreneurs and the plants themselves would develop in the meantime, a one-sided dependence on foreign capital, credit, technology and markets. Any home entrepreneur can only gain strength if the government grants him the possibility of capital accumulation at the expense of the population, that is, partly by the exploitation of his workers and partly by setting high prices for his products. Thus the artificial "rearing" of domestic capitalist entrepreneurs could only be achieved to the detriment of social justice. Nor would it take less time than would, for instance, the training of managers for the direction of state-owned enterprises. Moreover, it would obviously enhance the economic dependence of the country.

### Who Will Create Boom in a Developing Economy?

Enterprising in the developing countries has peculiar features. In the case of a centrally directed economy, growth is not the result of the initiatives and bold risk-taking of private entrepreneurs as was the case in the first period of capitalist



development in Europe. Growth is achieved here on the basis of accumulation directly falling into the hands of the state and of investments directly made by it. After the launching of economic growth, however, demand tends to increase more rapidly than the capacities suitable for satisfying it.

Thus, shortages in some capital goods and/or articles are likely to occur. Under such circumstances the point is not that the entrepreneurs must create a market for their surplus production but that the market urges and stimulates the entrepreneurs to increase production. On the other hand, protective tariffs, tax preferences etc. are granted to them to help cope with foreign competition. Under these conditions a layer of entrepreneurs taken in the true Schumpeterian sense can never develop.

We do not mean to say that enterprising faculties are no longer needed or cannot be evolved in the developing countries; what we say is that in a developing economy the entrepreneur cannot be the central figure of economic activities. His function in the developing countries will be discussed later in this chapter

### The Role of Economic Politicians and Planners

In a centrally directed economy governed by a coherent economico-political conception, the economic politicians, development strategists and planners must be considered participants of economic life. It is their task to elaborate the economic conception or growth strategy, i.e. to co-ordinate the targets and means of development for a definite period. They should foresee the expected course of development, the bottlenecks and tensions likely to arise, the social and political impacts and consequences of the economic progresses elicited. Others again have the task of timing the various actions and their concatenation in a coherent logical system and chronological sequence.

The number of economic politicians, development strategists and planners is comparatively small, but their work is of paramount importance in a centrally directed economy. It is their task to create the economic environment in which the various economic branches and enterprises will be acting. What is more, in the first period of development the creation of a viable micro-economy relying on its own resources will depend on the economic politicians acting on the macro-economic level.

Who are these economic politicians and what are the driving forces underlying their daily work?

The term economic politicians or development strategists is applied, in the first place, to the leading economists of the government or the party (vice-president responsible for the economic affairs, the deputy prime minister, the first secretary of the party, the minister of finances, the minister of planning, etc.) as well as the scientists co-operating in the building up of the development conception. The leading officials of the economic ministries take part in the implementation of this conception.

The chief driving force activating the development strategists and the best planners is not of a financial character in the first place. These excellent experts must, naturally, be paid well since their work requires a very high degree of concentration and they can hardly be replaced or supplemented by others. (When describing the development strategists and planners we proceed from the objective requirements, since the solution of these extremely intricate and far-reaching tasks demands excellent qualities. In practice, it may happen that these functions are entrusted to people of inferior qualities.)

The development strategists and planners, however, have no share in the profits of enterprises, whence their direct material interest in the outcome of their plans is limited. What are, then, the motives prompting the economic politicians to build up a correct conception or to correct it when necessary?

Let us mention four of these motives:

a) Patriotic, ethical and humanistic motives: every well-meaning economic politician feels that the future economic development, the fate of the country and the welfare of the people depend in the first place on the correctness of the development plan. This driving force permanently stimulates them to increase their knowledge and horizon, to check their conception against the economic processes arising in reality, and to carry out the necessary corrections of contents or method.

b) Intellectual motives: efforts made to solve complicated tasks elicit great tensions in a well-meaning economic politician. These tensions are released only by a successful solution of the problems that seemed unsurmountable at the beginning. This is how the abilities and attitudes of the economic politician progress from tension to release and from release to tension.

c) Motives deriving from the love of power and authority: a leading role in the economic policy of a country ensures power and authority. The driving forces connected with power may be noble or less noble: some people are keen on the possibilities of shaping the economy, others prefer the external features of power (influence, obsequious surroundings, limelight, etc.).

d) Insistence on maintaining fame, authority and influence once acquired, and fear of losing them in the case of failure play also a great role. With persons of a weak moral standing they may turn dangerous since a good conception can only be built up with great moral responsibility. Without this, the planner will try to reduce his own responsibility by choosing the safest alternative and making a preliminary compromise with his potential opponents.

These driving forces—which are not and cannot be coupled with material responsibility for the whole or part of the conception—may become sources of certain mistakes and errors. This may happen even in the case of the noblest motives. Let us point out some of the major possible errors:

a) Preference for the conception or for certain programmes contained therein. The creators (and this is not an exaggerated term here) who have succeeded in building up a coherent conception at the price of much work, struggle and intellectual tension are naturally fond of their achievement. They are prejudiced and reluctant to admit the mistakes revealed in the course of implementation. Anyhow,

they will not be so quick to admit and correct their mistakes as private entrepreneurs must, who are faced with imminent danger to their personal well-being. Moreover, the outright admission of the mistakes committed by planners may often be eluded because it is difficult to distinguish the mistakes of the original conception from the shortcomings of implementation.

b) Fear of losing prestige and authority. The planners often would not admit their mistakes for fear of being made responsible for them by the political leaders, of losing the respect of their colleagues and public esteem.

c) Often the highest political leadership is interested in hushing up the mistakes, since the conception may have opponents and even enemies within and without the regime who would play up the admission against the government.

d) Economic decision making without material consequences may lead, as is attested in practice, to arbitrary decisions. Political considerations are sometimes adduced to justify such decisions although these very seldom hide problems affecting the existence of the regime.

### The Creation of the Necessary Counterweight

Various measures can and should be taken to reduce the sources of errors. The width of these measures obviously depends on the number of highly qualified experts available.

The development plan could be entrusted to several independent teams for elaboration, every team consisting of economists of the country and from abroad. This method would yield several variants and permit the deciding organ to study and collate different views.

It is expedient to have reports on the course of implementation from institutions other than those responsible for planning (e.g. from financial and statistical organizations). Time and again national and foreign scientists should be invited to analyse the economic situation.

It follows from the above that we do not endorse the development of intellectual, operational and control monopolies. It is of great importance to allow different conceptions and views to be voiced, both regarding the preparation and formulation of major decisions and the analysis of the processes arising from them. Otherwise the mistakes and distortions will be discovered too late, and in lack of objective information the responsibility for the failure cannot be established. It is, then, easier to put the blame on natural calamities or on the shortcomings of implementation.

The patriotic, moral and humanistic attitudes and the intellectual tensions of the economic politicians and planners can be turned to good use if the sources of error deriving from the necessary lack of direct material interest are counterbalanced by appropriate organizational and planning methods. This is absolutely necessary since economic growth has to stem from the central measures and, owing to the present state of the micro-economy, its spontaneous factors are too weak to

mitigate the untoward effects of the erroneous or partly erroneous central dispositions.

On the contrary: taking part in the implementation of the central decision are organizations of a lower standard, having particular interests distorting the original intention and less contact with the concrete economic events than the leading economic organs. Thus, serious mistakes can be committed in the course of implementing decisions, and a good central decision must always consider also the expected attitude of the organs participating in implementation. In the developing countries, central economic decisions presupposing a differentiated collaboration of excellently co-operating organizations are likely to fail at the present stage.

### In Micro-economy the Entrepreneur Remains the Central Figure

As has been said before, economic policy by its central decisions determines the fundamental development targets with due regard to the available means, on the one hand, and develops an economic environment feeding economic growth and stimulating the different branches. In a centrally directed economy, too, it is the entrepreneur who plays the leading part in the concrete events of micro-economy.

To avert misunderstanding, let us stress again that by entrepreneur we understand not only the heads (owners) of major or minor capitalist firms but also the leaders of the state-owned or co-operative enterprises.

Enterprising abilities cannot be dispensed with in the developing countries either, and the lack of enterprising experience accumulated over generations arouses serious problems.

Let us analyse a few features of enterprising ability indispensable in the developing countries.

a) The creative and combinative faculty. The entrepreneur (manager) should become aware of the economic environment of the enterprise (consisting of such factors as the impact of macro-economic decisions on the enterprise and its surroundings, the possibilities opened by the financial monetary and credit policy of the government, the anticipated trends on the internal market, the expectations regarding the world market of the enterprise's products, etc.) to ensure the optimum activity of the enterprise. The optimum should be determined relying on enterprise criteria, but the future policy of the enterprise should be established with a view to a long-range period.

Considering the rapid changes in the economic environment we come to the conclusion that a good manager must have greater creative faculties and be more venturesome in the developing countries than in the advanced capitalist world.

The industrial manager in the developing countries is not part of a machinery relying on decennial or century-old traditions, abundantly supplied by highly qualified experts and large capital, that is, of a machinery in which the major part of the economic relations can be objectivized and even mechanized in a cer-

tain sense. The new enterprises in the developing countries are mostly small industrial islets in a society whose institutions and traditions are inherited from an earlier era.

b) Organizing ability cleverly adapting itself to the circumstances. The managers of the developing countries have to do not with ready-made industrial plants operating like well lubricated machines, but are called upon to build up plants. This activity requires proper circumspection, the knowledge of the economic environment and constantly renewed initiatives.

In a centrally directed economy the managers are meant to be active not only toward the market but also toward the economic leadership, since the decisions affecting the economic environment such as investment credits, rates of interests, customs and export bonuses depend on the leading organs. However, the principal yardstick of the activities of an enterprise is its economic efficiency, i.e. its success on the market. In such circumstances the manager should find a correct proportion between the two types of his activity, one toward the leading economic organs and one toward the market. There are, unfortunately, managers operating exclusively or mostly "upwards", i.e. wishing to gauge the economic efficiency of the enterprise not through its relation to the market but by improving its economic conditions determined by the higher organs. This attitude should be looked upon as a typical error of centrally directed economies, one whose effects can substantially be reduced partly by appropriate economic policy and methods of direction, and partly by establishing material incentives linked with the results achieved on the market.

c) Ability directly to influence the workers of the enterprise. The difficult economic circumstances of the developing countries as well as the relative recentness of industrial manpower often induce the managers to resort to political means and methods (mass meetings, etc.) in order to convince their collaborators of the correctness of some decision or initiative. It should be kept in mind that, for a long time to come, the living conditions for the workers of the new plants will be inadequate and this may elicit from time to time major or minor walk-outs and other tensions. On the other hand, people who have moved from rural communities to towns and cities have brought with them the habit of discussing vital questions collectively, and are receptive to reasonable persuasion. Hence a good manager should have an ability for, and experience in, persuading and influencing the masses.

But these qualities can assert themselves only under proper social and economic conditions of which let us mention the most important ones: appropriate training and selection and remuneration.

In the first stage of development the enterprising abilities may have to be imported. This means that one or two foreign experts must be engaged to take part in the leading body of the new enterprise. This is not an easy task since nationalist feelings, often reluctant to accept such a situation, may lead to tensions, frictions and conflicts. A foreign expert must, however, realize that nationalism is not "made" by the government but by the frame of mind and the interests

of the peoples who had been oppressed for many centuries and been humiliated in their dignity. The activity of a foreign expert may become efficient only if he is well aware of the situation and can put up with the tensions arising now and again, being alive to the fact that the sins of colonialism must often be expiated by those who had had no share in them, either individually or as members of a colonizing nation. The foreign expert should, therefore, strive to impart his knowledge and experience to the local leaders with conviction and good will. For emotional reasons, the local leaders will obviously try to reduce to the minimum the time necessary for imparting experience. We go far to understand these emotional factors, especially in the case of experts who fail to meet the requirements outlined above. But let us examine the experience gained in making use of foreign experts. One of the major points in this respect is that rapidly succeeding changes tend to reduce their sense of responsibility and even to demoralize them. This is natural since the effects and results of organizing the output and markets of a plant can be appraised only after four to five years. If a foreign expert must change jobs every second or third year, he will justly feel indignant at his role consisting only in starting a plant and in the very unpopular task of introducing austere measures, without being able to enjoy the reward of final success.

### Training and Selection of Managers

The principal form of manager training—for a long time to come—will be to send talented young graduates for postgraduate training to universities abroad, the other alternative being to organize their training, temporarily, with the co-operation of several countries, relying on foreign teachers. This second alternative seems to be the better one, but the proper conditions for it can only be created through appropriate co-operation and with adequate material resources. On the other hand, the first alternative involves the danger of education being detached from domestic economic reality. No industrial plant can be organized or directed irrespective of its economic environment. Yet the curricula taught abroad presuppose another type of economic environment, the type prevailing in the advanced countries. In the developing countries the complaint is often voiced that the experts trained abroad raise exaggerated requirements against the economic environment, the conditions for which have not yet developed at home. Now when these requirements are not secured, these young experts get disappointed, feel frustrated and lose their ambition. And experts disillusioned by the domestic conditions may become politically dangerous since they tend to hold the political leaders responsible for the inherited conditions. Others, again, feeling themselves misunderstood, withdraw into passivity or emigrate.

Manager training organized in a developing country to serve several such countries or a continent is likely to better be adapted in its curriculum and methods to the specific conditions prevailing there. This, of course, cannot be ensured by simply

moving the centre of education into the region in question. Still, it may be supposed that the foreign experts engaged in training will get better acquainted with the actual situation in which their trainees are expected to work.

One of the decisive factors of the rapid and efficient development of micro-economy is the selection of appropriate managers. In the times of free competition, the selecting factors was competition itself. Entrepreneurs and managers having less ability and stronger moral inhibitions were ousted and brought to ruin in the ruthless competition. In the developing countries, too, there are sectors in which competition selection has already started to produce good or acceptable entrepreneurs and managers without the interference of the government. Reality is, however, not so simple even here, since in a centrally directed economy the citizens hold the government responsible for employment, standard of living and for granting certain contract rights. Hence the micro-economic decisions of the managers intensively concern the government, not to speak of the fact that it is the state's task to create the conditions of business life, to grant or guarantee credits, to introduce protective tariffs or to pay export bonuses.

Under such conditions the state must obviously insist on having such persons at the head of the capitalist enterprises who are loyal to the government and are ready to co-operate with it in order to attain the national aims.

The situation is somewhat different in the case of the leaders of the state enterprises. These are selected "from above", they are appointed by the supervising ministry. It follows that in the developing countries the system and practice of selecting economic leaders should rely on scientific methods. Otherwise there is the danger of selection being made arbitrarily and irrespective of economic abilities. Low opinion on most capitalist entrepreneurs may be justified but, from a purely economic angle, they must have certain abilities or else could not survive in the tough competition. In the case of a selection "from above" the political (party) organs or the state apparatus are inclined to make their choice from the angle of "political reliability", a tendency logically deriving from the vital interests of a system at times of increased political tensions. Yet, in most cases they try to find the politically reliable people not among the economists but among the friends of the political or administrative leaders. Thus it often happens that important economic posts (such as those of the managers) are occupied by relatives of politicians or higher state officials or people whose merits acquired in other fields are "recompensed" in this way. (Relatives may turn out to be particularly dangerous in countries where the ancient bonds of kinship or family are of greater importance than in the advanced countries of our days.) Some of the leaders selected in this manner may prove suitable for the jobs, yet their majority—as a consequence of a system of selection disregarding the requirements of economic life—turn out to be unsuited or powerless.

In order to ward off possible distortions, a far-sighted central leadership should endeavour to give the selection of the economic leaders the widest publicity. It is therefore expedient to organize public competitions for the major leading posts in the enterprises (manager, chief engineer, chief accountant). Both the conditions

and the outcome of the tenders should be made publicly known. Otherwise the leading politicians and administrative leaders will be exposed to a pressure they may not be able to withstand. Many leading politicians are reluctant to introduce such a system, saying that it binds their hands. Innumerable examples taken from practice could be quoted to show that the system of arbitrary selection tends to unbind the hands not of the higher political leaders but of their environment. A bad choice is bound to lead to extremely untoward economic consequences within a very short time. To arrive at real economic results, strenuous efforts must be made over a long time but it is very easy to spoil the results already achieved.

### Remuneration of Managers

The managers must have a relatively high income as a function of the results achieved by the enterprise. The income may be made up of two sources: a high basic salary and some kind of share in the profits or net gain of the enterprise.

When establishing the salaries of the managers it should be taken into account that considerable economic interests are attached to the sound development of the enterprise. In an economy at the initial stage of its development, the insufficient operation of one major enterprise may disturb the balance of the whole economy. The managers are expected to work under extremely difficult conditions, and much depends on their inventiveness and boldness. On the other hand, good economic leaders have a sound eye on their own financial interests. This cannot be otherwise, as their mind is bent on money, prices, incomes and prosperity; and it seems indeed impossible to find an economic leader who is careful with the taxpayer's money but is indifferent to his own.

The profit share of the manager must be in keeping with the actual profit of the enterprise. A specific problem arises in cases (not in frequent) where a state-owned enterprise must, upon different considerations, temporarily operate with a loss. The reduction and gradual eliminating of such losses, when it results from good management, must also be rewarded, even in the absence of an actual gain.

It should be realized, however, that the managers working in the developing countries will not be able to enjoy such incomes as are looked upon as natural in the capitalist countries in posts with similar responsibilities. It is therefore of particular importance to maintain the social authority and esteem due to the managers. Their patriotic feelings, the beauty of their work and their high social esteem must reward them for the financial disadvantage they incur compared with their colleagues working in the advanced countries. A good, creative political atmosphere, one of the major driving forces of economic growth, has a great significance also in this respect, as has been emphasized before, in connection with the scientists.



## Small Entrepreneur as a Most Stable Figure in a Developing Economy

Beside the entrepreneurs and managers, small business and those engaged in it also play a significant role in a developing economy. We have earlier touched upon the economic reasons thereof, when pointing out the shortage in capital, the oversupply in unqualified labour, the expected difficulties on the market of capital goods and consumer articles.

The production of small industries has to meet demands which existed prior to the beginning of economic growth and the volume of which goes on increasing. In addition, it must also meet needs new in structure and character. The demand for the products of craftsmen manufacturing textiles, shoes, etc. rises considerably with the increase of the purchasing power and of the afflux of urban population. Also the new large industrial plants create demand for certain semifinished goods which, under advanced conditions, are produced by other co-operating large plants. Owing to the shortage of capital in the developing countries, it is not possible to create large-scale industries for all such purposes. Hence around a large plant, a network of co-operating small entrepreneurs (tradesmen, businessmen) must be developed.

The small entrepreneurs are in most cases well-trained specialists of their craft. They may be well versed in production, possess a high degree of skills necessary for the manufacture of goods, as well as sufficient knowledge of their market enabling them to feel the trends of future demand and to secure appropriate profits in marketing.

No doubt, when economic growth has been launched, this layer must be informed of the expected trends in demand and the new needs arising in the economy. By orders from the state and the large enterprises, by credit and taxation policy the production of this layer can also be intensively influenced. As their production will be needed for a long time to come this stratum must be spared the possible losses since otherwise they must soon wind up their workshops. Orders can be given to cover various demands in various ways.

a) The export enterprises may place orders with the small industry for goods of high quality, artistic execution as well as for mass products manufactured with a labour-intensive technology. In this case the small contractor makes a considerable contribution to increasing the inflow of foreign currency, thus participating in the elimination of the worst bottleneck of the economy.

b) The state may give direct orders to the small entrepreneurs for the production of certain commodities necessary for communal consumption.

c) The major industrial or commercial enterprises rally the small entrepreneurs and absorb the major part or the whole of their capacity.

In the case of the small industry producing directly for the market, such a production can be oriented by the state's credit and taxation policy as well as by providing regular information on the expected trends on the market.

What perspectives has the small industry in a developing economy? A thorough economic assessment of the question yields the following conclusions:

a) The production of the small industry will be needed for a long time (probably for generations) irrespective of the majority of the big industry being state-owned or private-owned.

b) Owing to the expansion of economic activities and to the changes in their structure, the small industry may count upon a safe and growing demand for its products.

c) Through their relations to the state, the credit organization, industry and to trade, the small industry should create and maintain close contacts with the rest of the economy and especially with the major economic organizations.

d) In our times comparatively few small entrepreneurs (and only in exceptional cases) have the possibility to become big businessmen. The often quoted western examples disclose little in this respect since in the advanced capitalist countries technology developed together with the enterprises. It was therefore possible for the individual capitalist to accumulate gradually the capital necessary to expand his plant in the scale required by the contemporary level of technological progress. The present level of technology, however, requires to build up large plants right from the beginning. Thus, in the developing countries the big enterprises must be established with the help of central accumulation and of foreign credits, lest the gap between the advanced and the developing countries should go on increasing for generations. It follows that enterprising knowledge required by the existence of large enterprises (combinative faculties, economic and technological knowledge) will become sooner necessary than permitted by the gradual development of the small enterprises.

Once the large-scale enterprises are there and exert an influence on the economic environment, the small industry can operate only within the limits set and the possibilities opened by the state and the big enterprises.

It logically follows that small business in a developing country will essentially differ from its western counterpart in its endeavours, possibilities and reactions to economic impulses. One of the stimulating motives is lacking, or exists in a very restricted sense: the small businessman can hardly hope ever to become a big one, a fact he realizes not theoretically but by becoming aware of the ever growing difference in size between his enterprise and the really big ones, and through the nature of his economic relations with these. The government, too, must consider this situation and should not try to restrict the minor enterprises but rather endeavour to create such major enterprises as are able to rally the former by economic means (commodity and credit relations). Otherwise every small businessman will feel that it is the government who frustrates his ambitions of expansion.

A small businessman can, indeed, accumulate some capital to set up an enterprise of middle size, but extremely seldom can he become a big entrepreneur.

But this feeling of limitedness is fortunately compensated by others, like the feeling of increased security. A good small entrepreneur is likely to be overloaded with orders since the demands of export, communal consumption, big industry

and of the consumers' market are rapidly raising. This fact enhances his enterprising self-consciousness yet, on the other hand, safety may make him—to some extent—easy-going. He obtains credit and often even raw material from others (bank, trade, big enterprises) and is less concerned with the market.

Assessing the frame of mind of the small businessman developing under such conditions (and expressed in the set of his economic decisions) we can say that from the social and economic point of view he is acting correctly when renouncing to become a big entrepreneur (to achieve this he would have to recur to ruthless means) yet his easy-going and disconcert may have negative effects. These effects can be reduced when supply is kept somewhat above demand. This will induce the small entrepreneur to remain competitive lest he could lose his orders.

The small industry must, of course, be permitted to set up its own organizations (for instance industrial co-operatives) which can then play an outstanding role in the acquisition of raw materials, in improving credit and tax conditions, in granting better information on market and, in some places, also in the marketing of the products.

We have earlier discussed the problem of the small businessmen working in commerce. We have also said that the proportion of manpower engaged in commerce is unreasonably high, yet it is difficult to bring about changes in this field. Big industry is not yet capable of absorbing all labour surplus, whereas small industry requires manpower of comparatively high qualification. Endeavours should be made to direct part of the manpower to small industry by granting various advantages; but the mentioned disproportionality in occupation can be only gradually eliminated.

A considerable part of trade, as has been said several times, is in the hands of foreign capitalists. Home tradesmen obviously cannot keep pace with big foreign enterprises strong in capital and operating in contemporary forms of trade. Hence by granting credits and rallying the tradesmen in co-operatives it is necessary to promote the creation of trade enterprises stronger in capital than the existing ones and transacting business in a more contemporary form.

In most developing countries, small trade is not capable of meeting the growing demands. (In many countries even middle-size commercial capital is in foreign hands, although it does not stem from advanced imperialist countries.) Thus, the new generation is inclined to look upon home trade as a sad embodiment of the burdensome inheritance of the past. The modernization of home trade can, obviously, be achieved best through co-operatives enjoying state support and credits. Their task is not only to have small shops but also to create major department stores.

### Co-operative Managers

The trade co-operatives organized in towns must have excellent businessmen for leaders. While the heads of new state plants have to cope "only" with the objective difficulties, the manager of a trading co-operative, beside tackling the prob-

lems deriving from his tasks and conditions, must also face competition. He is held between two fires by the foreign-owned department stores and by traditional trade. Beside inventive and circumspect managers, the co-operatives require faithful and permanent members in this struggle. The membership represents an advantage which the greatest foreign concern cannot boast with. Hence what is needed in commerce is not organizational forms "objectivized" and seemingly independent of their founders because, with his huge economic background, the foreign entrepreneur will in this respect have a very great advantage for a long time to come. Wanted are excellent organizers who are able to induce the different layers of the population (according to profession, regions, etc.) to subscribe for shares and participate full-heartedly in the activities of the enterprise. Such a membership represents, at the same time, a vast purchasing background which, of course, cannot be left unextended for a long time. If the enterprise is successful, the co-operative may make also industrial investments.

Such co-operatives must have managers of an enterprising spirit who direct the enterprise boldly but with circumspection, and also a presidium capable of controlling the organization. The manager must have high economic qualities, the presidium or board of directors must have high political qualities to fulfil their duties. The driving forces stimulating the manager are, beside his talent bent on securing progress, partly of a material partly of a patriotic and moral character. He must have, in addition to a high salary, also a share in the net gain. His patriotic feelings will help him co-operate in the supplanting of the foreign enterprises and in bringing prosperity to the economy of his country. In addition to this, the government must see to it in various forms that the best co-operative managers of the country should be held in due esteem.

In agriculture we find again different participants. Co-operatives—whether marketing or producers' cooperatives, consumers' or credit co-operatives—constitute the most important rural institutions training leaders and organizers, as has been said in Chapter 9 on agriculture.

One of the great advantages of the rural co-operative is that, unlike the urban enterprises, it can start its activities with a small nucleus, whence the specialized knowledge and organizational capacity of the leaders can grow parallel to the size of the co-operative. Another great advantage is that it may be built on ancient forms of community as, for instance, the *ejidos* in Mexico, the rural communities in India, Guinea and Indonesia, which had shaped the life of the village for centuries. It need not start its activities anew but must only introduce new content in the old forms.

### The Leader of the Rural Co-operative

In this manner the head of the co-operative (the president) may become the central figure of the transformation of the rural community and of the development of agricultural production. This man is then not only a manager operating under co-operative conditions but also a political person who is capable of per-

suading the population (the membership) to start undertakings or activities whose correctness and efficiency have not yet been realized by most people. In the course of persuasion he will resort to a host of devices beginning from rational reasoning up to the references to traditions or the artifices of peasant cunning. The leader must have authority deriving from his honesty, good will and the results achieved. A co-operative or community directed by a good leader covers not only the economic problems but also large part of the social, health and educational problems. In these fields he should co-operate also with the representatives of local administration.

Such a leader must, obviously, have experts to rely on as agriculturists, engineers, accountants, trade or even industrial specialists. These must be reared and educated in the co-operative. By the system of income distribution these experts must be made interested in improving and multiplying the economic results of the co-operative.

Also in connection with the rural co-operatives it should be pointed out that the president, the leading members and experts are not governed in their actions by purely financial considerations.

The president is stimulated by his national and communal feelings, sense of duty and by his love of power taken in the correct sense of the term. He is naturally pleased and filled with pride when serving his fellowmen and advancing his much-suffered people by his work. It is obviously most advantageous for the development of the community and the individual if the rural leaders are led not exclusively and not in the first place by material motives. Otherwise they would get rich at the expense of others and this would undermine development and the life of the community fundamentally. (Getting rich at the expense of others is not necessarily connected with the simple abuse of power; it can take legal or semilegal forms, none the less dangerous in this case.) Here we wish to stress again, as we did in the case of the development strategists and planners, that leaders thinking in terms of patriotic, moral and power categories are never affected as heavily by the economic events, whether positive or negative, as are the individual free entrepreneurs. This has certain drawbacks since the appearance of certain human properties or of their combination in some economic situation is never unilaterally advantageous: not even when they are the noblest, and the intentions the purest.

The rather subordinate role of material interest, however, may result also in co-operative presidents sticking to their conceptions and in going on imposing them (led by their best conviction) even when results in practice have already revealed that they are untenable, overdriven or hasty. This becomes particularly dangerous when an exaggerated love of power is coupled with questions of prestige. This may go so far that the leader hinders the modification of his original conception until its adverse material consequences become all too evident. It is important to forestall his phenomenon and the concomitant disadvantages. For this purpose the experts advising the co-operative should reveal the errors in time and the membership should exercise proper control over the co-operative's affairs. Specialized qualification and internal democracy are the forces in the life

of a collective capable of preventing unfounded conceptions from being arbitrarily imposed on it.

Yet in spite of these possible dangers it should be emphasised that a good co-operative or community leader may become the prime mover of rural transformation and development.

### The Peasant as Small-scale Commodity Producer

The picture would not be complete if we failed to say a few words on the peasant producing for the market or, to use a more fashionable term, on the small farmer. In some countries he tills common land, in others he is also the owner, of the land.

Some western economists expect the farmers to impart a new impulse to agriculture. We, too, attribute a great importance to their activities since their work and efforts enhance commodity production and exports. Yet I wish to point out that in the developing countries the farmer cannot become—not even temporarily—the central figure of agricultural production. The reasons are obvious:

- a) the small farmer's poorness in capital and low capacity to accumulate,
- b) the fact that collective social undertakings (as, e.g. irrigation) and the economic activity of the state (e.g. production or import and distribution of fertilizers) must play a decisive role in the increase of agricultural production,
- c) the low organizational level of traditional agriculture,
- d) oversupply in unskilled agricultural labour, i.e. overpopulation impeding the rationalization of individually owned farms.

These facts, naturally, do not imply that the abilities and talents of the Asian or African farmer should be inferior to those of this American or European colleagues but hint at the radically different conditions. We, as the reader may have seen, hold in high esteem the individual qualities but we think that they cannot assert themselves irrespective of the social and economic conditions. In the course of the economic growth of the developing countries, the individual faculties, individual initiatives and creative abilities come to the fore under different conditions, i.e. assume different forms from those in the advanced capitalist countries.

### Leaders of Banking Organizations

The leaders and higher executives of the state banking organizations also play an important role in the economy of the developing countries.

The bankers take part in the elaboration of the development conceptions and handle the means essentially influencing the activity of the economic sectors and thereby also the nature and tendencies of the evolving economic processes. It has obviously been and remains their task to transmit the impulses coming from economic life and the consequences of the behaviour of the entrepreneurs (the various economic sectors) to the government. The efficient state bankers can be

assigned to the category of economic politicians and planners although their role and tasks in the implementation of the economic conception are much more concrete.

In our description of the leading personalities of economic life we have emphasized that in the developing countries all social formations and all individual talents should be included into the flow of economic growth directed centrally. Economic activity is regarded as a creative work whose aims and frames are determined on the national level, but whose success and efficiency depend on the advancement of the social institutions, on the qualities, attitudes and interests of the participants of economic life.

### Motives Guiding the Participants of Economic Life

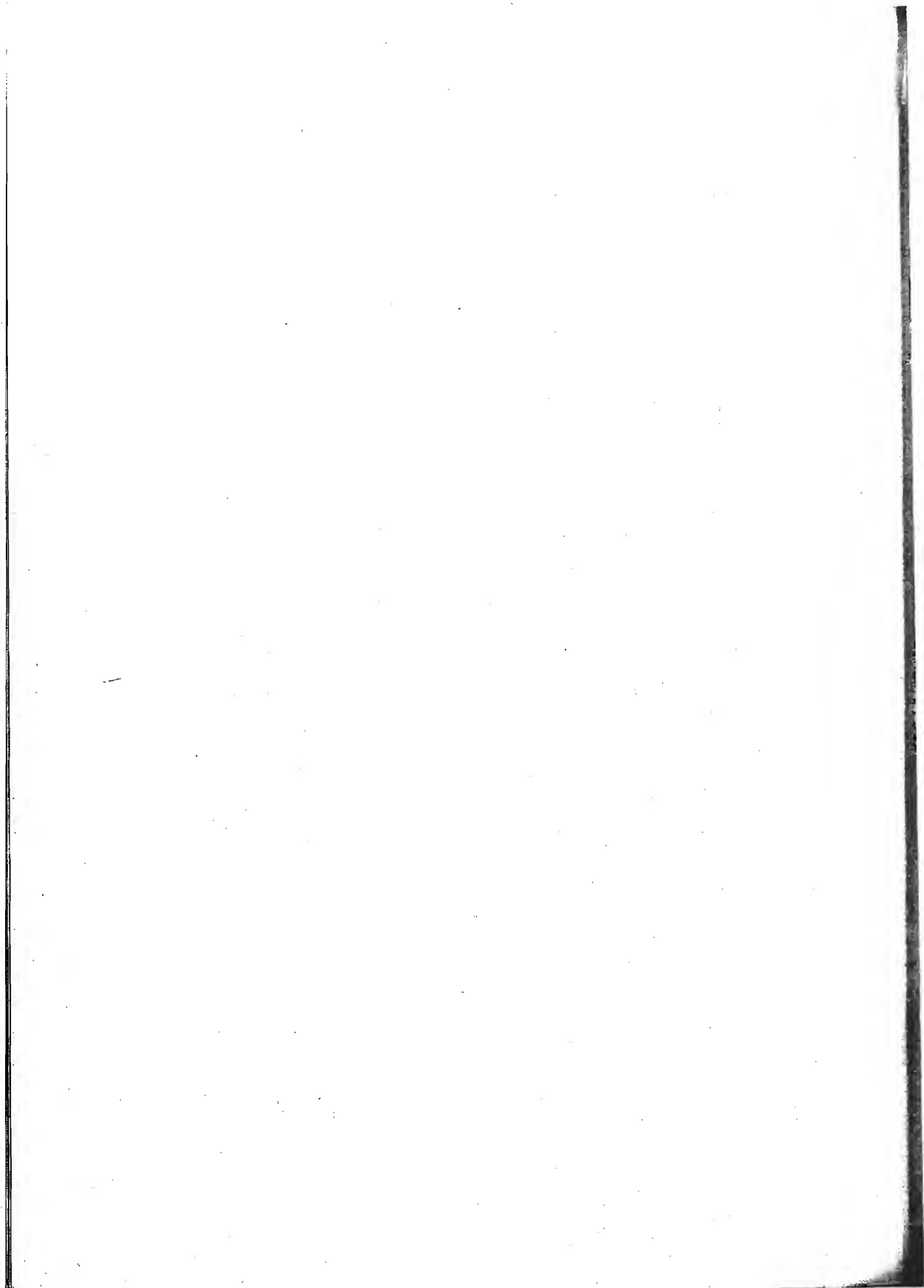
The motives and interests governing the actions of the participants of economic life in the developing countries, as we have seen, differ from those governing actions in the advanced capitalist countries. The essential in the differences could be reduced to the fact that national, patriotic, moral, humanistic factors and factors deriving from political power play a more significant part in the developing economies than in the advanced capitalist countries.

We have clarified the reasons, advantages and drawbacks of this phenomenon.

It is of paramount importance to analyse fundamentally the characteristic behaviour and attitude of the participants of economic life in the developing countries, for without being aware of them no correct economic decision making is possible. We must see, then, that a kind of economy is coming into being in the developing countries whose participants are governed by new driving forces on account of the peculiarities of the social and economic conditions.

These driving forces do not act on economic leaders with the same elementary force as the positive and negative economic incentives act on the entrepreneur in the capitalist economy. They do not offer the alternatives of becoming rich or bankrupt, but they anyhow permit the economic leaders to obtain relatively high incomes in keeping with the economic results achieved by them. And, in addition, during the development of the national economy, driving forces of a radically new type, that is, of a nationalist, moral and humanistic character are born and begin to affect the whole economy, from the makers of macro-economic decisions to the simple worker.

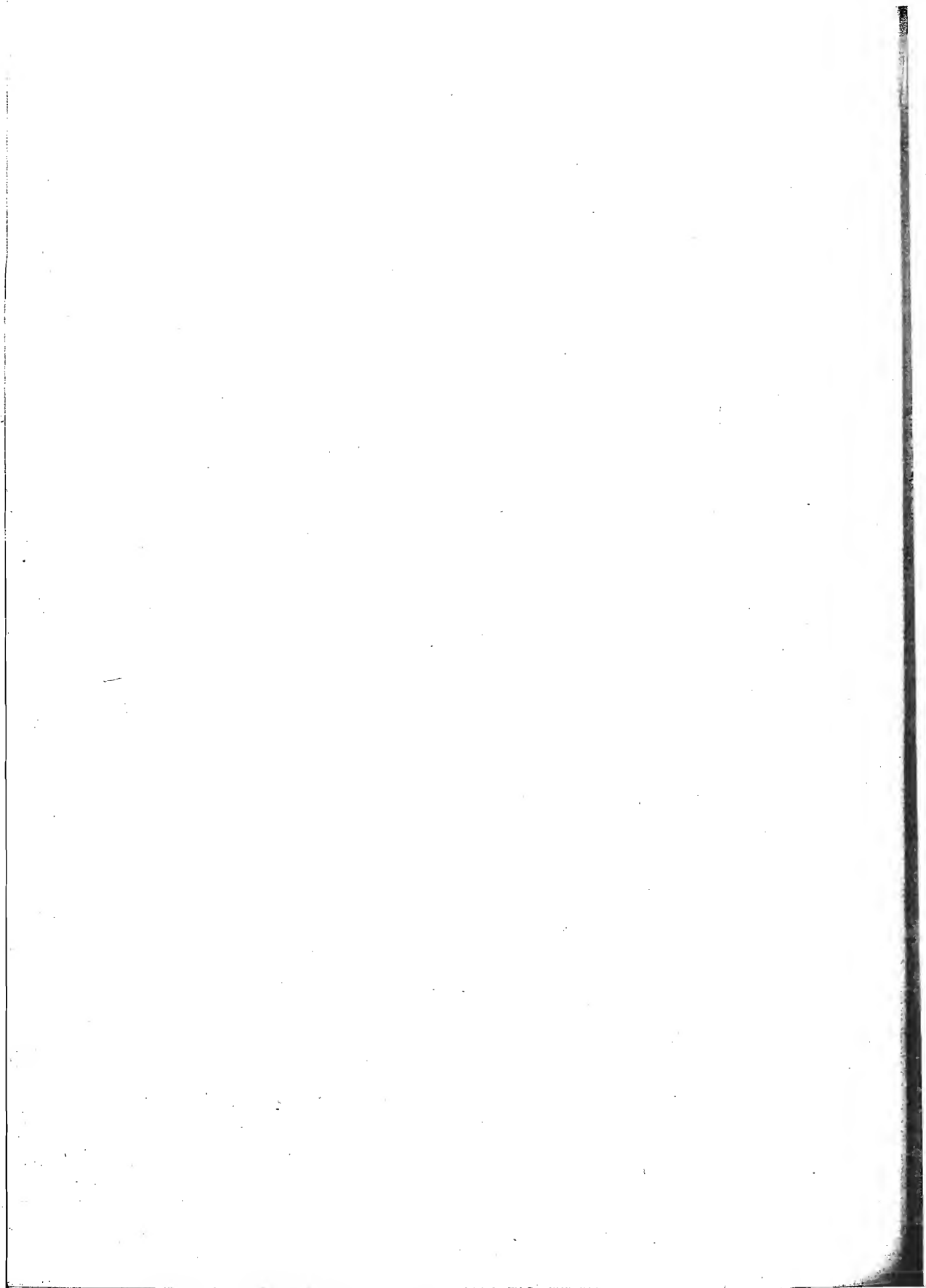
The establishment and maintenance of the appropriate proportions of the old and the new driving forces, the dynamic attitude of the leaders and the responsibility felt by the simple workers for the fate of the nation guarantee that the governments implementing progressive reforms become capable of accelerating economic growth.





PART THREE

Execution of Rational  
Economic Action



## CHAPTER 14

### Implementation of the Economic Conception (Plan) and Economic Control in the Developing Countries

We have so far made a detailed study of the growth strategy, the problems, correlations and interactions of the long-range economic policy and of the economic conception (the national economic plan), directing the short-term economic policy.

We have pointed out that, before starting economic growth, a growth strategy should be built up. The primary task of long-term economic policy is to determine the development targets. In order to establish and synchronize the joint effects of factors acting at various speeds, a longer period must be envisaged. When framing a growth strategy, particular care should be taken to elaborate such problems as the co-ordination and correlation of the economic and non-economic (that is, political, social and cultural) factors, the changes in the economic structure, the relationships between the internal dynamics of economy and the development of the international economy as well as the tasks associated with the liquidation of the bottlenecks.

When framing a long-term economic policy, the actual problems and difficulties arising during the growth process are not planned, that is, what we prepare is not an action programme. Nor are the individual targets and economic actions fixed in a strict chronologic order. The desirable targets are determined after a detailed comparative analysis based on the postulate of economic efficiency and on certain development hypotheses. The principle of economic efficiency, as is known, requires an optimum relationship between the input of means and the results achieved. In the following we shall assume that the targets of the long-term conception are economically rational and they can be implemented, provided the anticipated changes of the actual conditions are correctly combined in their major trends.

Clearly the rationality of the economic targets is inseparable from the character and the fundamental endeavours of the given socio-economic system.

This assumption, naturally, does not exactly reflect the actual situation since, first, the power relations in the making are not determined exclusively by the major trends of the internal development of the social system and, second, because all economic targets rely on the actual achievements of the preceding period. Yet the growth strategy, i.e. the conception of a long-term economic policy is not called upon to consider these circumstances since if it did so it would cease to be a long-term concept and would serve direct action rather than foresight.

What still remains a problem is the fact that the targets set on the basis of comparative analyses and development hypotheses are subject to changes in the

scientific and technological development as well as to those involved and started by world economy. Hence the targets determined on the basis of the growth strategy should be revised from time to time because, by considering these changes, the available means can be used more efficiently. In other words, old targets may cease to be rational in a new situation. In spite of these limitations the framing of a growth strategy and its inclusion in a system of correlated aims are of a very great significance.

### The Significance of a Long-term Economic-political Conception

In a system of economic actions started from above and governed centrally, a long-range economic policy (long-term plan) consisting of correlated targets has a function similar to that of ideology for human thinking. Ideology creates a system of correlations between individual perceptions, views and judgements. Also a long-term plan creates a system of relationships between hypotheses and expectations for the future, on the one hand, and, on the other, human efforts made for preparing future situations.

A long-term plan, relying on incorrect hypotheses and expectation, in the same way as an ideology relying on an incorrect body of knowledge, may be directly harmful. Yet the present state of our knowledge permits us to evolve a growth strategy for the developing world which correctly defines the starting hypotheses and also the human endeavours preparing the future—or, from another aspect, the economic targets.

A good growth strategy has an immense disciplinary and organizational power. It enables the government (the economic leadership) to make their short-term decisions in the knowledge of the long-term targets. Thereby the long-term plan ensures continuity between the economic decisions made by the direction in different situations and at different times; it establishes contacts within economic actions and processes taking place in different time systems.

As far as the masses are concerned, the long-term plan and the targets included in it have a mobilizing and encouraging effect on them. These targets impart the conviction to the masses sympathizing with the given socio-economic system that the laborious daily struggles, the unflinching efforts to overcome the difficulties, the many compulsory sacrifices have a higher meaning: they will result in a better world which can be outlined and characterized by numbers, data and real processes.

The long-term plan and the aims it contains have, however, no organizational and animating effect unless the actual achievements of economic development justify the economic policy of the government. If there is a recess in economy—especially in the standard of living of the masses—a contrast arises between the actual situation and the future aims, a contrast which demoralizes much rather than mobilizes. In such cases the dreariness of the present cannot be counterbalanced by prophecies relating to the future. The atmosphere of confidence in the long-

term targets, an atmosphere of optimism and activity, can only be created by an economy having an upward tendency. In a transitional regression or in a development crisis the confidence of the masses can best be regained by the solution of simple and conspicuous tasks.

The economic conception, i.e. the medium-term plan has functions which are entirely different from those of a long-term plan.

### Planning as an Important Instrument of Economic Direction

In connection with the organizational methods we have already pointed out that we look upon planning as the greatest invention of Marxist economics of the twentieth century. Planning, as the chief method of economic control, is exercised all over the world. Hence this method has been applied under substantially different social conditions and ownership relations in different economies whose state of advancement ranges from the highest to the lowest point of the scale.

Thus, opinions and views on the functions and tasks of planning, its place in economic action are widely different. Nevertheless it is clear that planning is inseparable from the postulate of national economic action, and this postulate arose as soon as commodity and money conditions started to dominate the market. Traditional economy did nothing but satisfy actual demand. At variance with this, rational economy wishes to meet demand in a manner to permit, as a result of the whole process, the accumulation of surpluses in various forms (profits, net income of society, etc.) which are capable of contributing to the development of production forces. That is why an optimum relationship must be created between the material means to be utilized (the existing means of production or those to be created) and the resulting economic achievement. This is the fundamental content and significance of the principle of economic efficiency.

Rational economic activity has developed during history in different spheres (micro- and macro-spheres). The names "micro- and macro-spheres" do not mean a hierarchy, in the sense of subordinating one level to the other.

In capitalism—as has been pointed out earlier—rational economic activity was confined, for a long time, almost exclusively to the micro-economic sphere, whence the decisions were often irrational from the macro-economic angle. Socialism, on the other hand, endeavours to extend the rationality of economic actions also to the macro-economic sphere. This is made possible by the socialist ownership relations. Hence the rationality of economic actions in socialism attains potentially a high degree. Yet micro-economy lives its own life also in socialism, as a consequence of which a macro-economic decision cannot be correct unless it allows the laws and interests of micro-economy to assert themselves adequately.

In a developing economy, as we know it, the acceleration of economic growth, the supply of means even if scarce, their utilization in accordance with the requirements of economic efficiency, the creation of the economic and social environment

promoting development is, in the first place, the task of the government, i.e. of the political power. That is why also in these countries the macro-economic sphere—despite the prevailing ownership relations—must play a decisive role in rational economic action.

### Rational Economic Action Born in the Macro-economic Field

Here too, the rational economic action must be started in the social macro-economic sphere, and such actions require the following conditions to be satisfied:

- a) an internal cohesion of actions performed in different sectors and time systems,
- b) a certain hierarchy and timing of the various development targets,
- c) harmony in the correlated moves of the interdependent factors,
- d) harmony in the changes of the economic and non-economic factors,
- e) optimum trends in the aggregate economic processes (in the increase of the national income),
- f) the dynamic equilibrium of the economic processes elicited and developed by rational economic actions.

These postulates can most efficiently be met through planning. We therefore consider planning a method by which rational economic action attains the highest potential efficiency ever known in economic history. We are far from looking upon the plan as a substitute for all subsequent weighing and decision, that is, from "fetishizing" it. It is, however, quite clear that planning is a highly important tool of economic foresight and control by which, when applied reasonably, the rational economic actions performed in the macro-economic sphere can be co-ordinated and synchronized. It is macro-economic rationality rather than any preconceived plan that we consider as primary for human decisions and actions. So, if the conditions and circumstances change, if new factors appear, the plan must be altered accordingly. Otherwise the plan would become the carrier of irrational or sub-rational actions, and this would diametrically contradict the requirements of economic efficiency.

Elaborating a conception of economic policy, consisting of an interdependent and synchronized system of rational economic actions, means the establishing of a medium-term plan; and this is an extremely intricate task in the developing countries. The relevant difficulties, requirements and methods have been analysed at large in the previous parts of this monograph. Here we only want to point out that international economic science can afford substantial help in the elaboration of a medium-term economic plan. It is, of course, indispensable for the economists of the advanced countries to get acquainted with the intricate growth problems of their countries and become thereby capable of facing new situations and requirements from new angles. If they are able to do this, if their view is free from prejudice or preconceived doctrines, then—irrespective of the existing difficulties—we may anticipate that most developing countries will, within a few years, have their

economic plans, complying with their endowments and medium-term concepts of economic policy.

To implement an established conception of economic policy is an even more difficult problem in the developing countries because they must, first of all, introduce the efficient forms of economic control. It is quite clear that economic science has so far underestimated the significance of the questions connected with the putting into practice of macro-economic decisions and with the establishment of the most efficient forms of economic control. This gap of scientific research is felt much less in advanced capitalist economies since there the micro-economic sphere remains to be the genuine domain of economic actions. The economic control exercised by the government is aimed at a correct anticipation and possible co-ordination of the effects of the micro-economic actions on macro-economy, in order to give a favourable trend to the aggregate of economic processes and to ensure their dynamic equilibrium. The appearance of such governmental activities is, no doubt, highly important in contemporary capitalism, yet most of the new phenomena still remain associated with the unprecedented increase of the scale of enterprises and with the improvement of the possibilities of scientific forecasting.

Finally, when examining the nature and the characteristics of economic control evolved in the advanced capitalist countries, it must not be forgotten that here we have to do with mature and consolidated societies. In such a society the behaviour of the economic organizations and individuals can be better predicted because the effects of the influencing factors and their relative order of magnitude can be established on the basis of the analysis of long time series. Owing to the stability of the social and economic conditions, the sphere of the potential and possible changes is limited since in most cases only one or two factors are able to involve more or less essential changes.

In a socialist economy it is indispensable to elaborate in detail all problems associated with implementing a conception of economic policy. There is no doubt, however, that attempts at improving economic control are still recent in the socialist countries. The lag in this field is connected with several factors, such as these:

- a) economic dogmatism underestimated the significance of the markets, that is, of their regulating effects indispensable for maintaining economic efficiency,
- b) economic thinking tended to underestimate the importance of micro-economy and misunderstand its true function,
- c) the national economic plan was looked upon as an absolute postulate, and its implementation was believed to be safely ensured by means of a coherent system of administrative instructions,
- d) socialist economic science could rely on little experience concerning the behaviour of the classical economic categories amidst socialist conditions.

The economic reforms that are under way in most socialist countries have shaped a new way of thinking also in this respect. It cannot be doubted that within a few years a new scientific discipline summing up the new methods of controlling a socialist economy is going to develop.

## Interdependent Processes in Economic Control

Central economic control—in the case of decisions taken and implemented in the macro-economic sphere—comprises four interdependent processes in the following logical and chronological succession:

1. The way of making central (governmental) decisions. In this respect it should be noted that in a centrally directed economy the decisions of fundamental importance are usually made by political bodies. It follows that the decisions are governed not exclusively by economic considerations. The outcome of such central decisions is influenced by various forces and factors which will be analysed later.

2. The coherent system of methods and procedures by means of which the central leadership transmits its will and conception to the various economic sectors and organization. It should be remembered that the number of economic sectors in the developing countries is much greater and their relative character is much more contradictory than in the socialist and in the advanced capitalist economies.

3. The activities of the different economic sectors, organizations and units under the impact of the central decisions and incentives and of the economic environment.

4. The macro-economic processes, correlations and phenomena arising from economic activity in the micro-economic sphere and requiring new or revised decisions from the central organs.

The above considerations make it clear that the word "macro-economy" can be used in two different meanings, depending on whether it is approached from the angle of the central decisions laying the foundations of rational economic actions, or from the angle of economic processes taking shape in reality. The sum total of the interdependent processes in the micro-economic sphere constitutes, in addition to the given economic and social background, the macro-economic sphere of the economy. When making central decisions we must start from certain assumed situations; we must combine these and the forces at our disposal in such a way as to attain our targets in this assumed situation. Thus the function of our decisions and of subsequent rational activities aimed at economic control is to impart to the processes and growth of the economy a definite course, consistent with our targets. The control of economy is thus inseparable from its operation because economic growth is a process in which the elements, factors and situations induced by the control system constitute an integral component.

The interdependence between the control and the operation of the economy can be supported and confirmed by more than one logical argument, and also by concrete observation.

Of these we wish to mention two only:

- a) In processes taking place in a centrally directed economy, rational human decisions and the operation of the economy are closely intertwined: the economic control elicits or influences the economic processes and their impact on the future trends, on the one hand, and, on the other, these processes react as a feedback upon economic control itself, since they limit the attainable aims, require corrections and determine the adequate means and methods of control.



b) The efficiency of a control system may be justified or refuted by the actual trends of the economic processes. The system of control is not efficient if the economic expansion is slow, if in the economic circulation imbalances substantially exceeding the tolerable maximum become constant, and if overall development attained substantially differs from that envisaged in the central decisions of economic policy.

The efficiency of the control system depends, in the first place, on how the decisions of economic policy made in the macro-economic sphere can be transferred into the micro-economic sphere. If, owing to the shortcomings of the system of transmission (transfer of will), the various sectors and economic units are functioning at variance with the central assumptions and combinations, then conflicts and troubles arise in the micro-economic sphere. Their order of magnitude—provided the content of the central decisions (their adequateness for achieving the targets) is assumed as correct—is determined by the dimensions and character of the deviations and by the cumulated effects of the incorrectly combined factors. It is, however, quite clear that the deficient connection between the micro-economic and the macro-economic spheres is not merely one of the possible economic troubles; it indicates a fundamental weakness of the control system.

The conflict between micro-economy and macro-economy in capitalism was, for a long time, the necessary outcome of the ownership relations. However, we believe that in the developing countries, in spite of the contradictions of the ownership relations, it is possible to control the economy, i.e. to achieve a relative harmony between the macro-economic and the micro-economic spheres.

### Factors Limiting Efficient Economic Control

Nevertheless, it is beyond doubt that the efficiency of economic control is hampered by a wide variety of circumstances, of which we shall mention the most important ones.

a) The uncertainties in the political power relations. In a centrally directed economy the major economic decisions are known to be made by political bodies (leaders of political parties, government, revolutionary councils, parliaments, etc.). All these bodies approach, quite understandably, the economic problems, in the first place, from the angle of power considerations and accept or refute the economic alternatives with respect to whether they strengthen or weaken their power. Under more consolidated political conditions the political bodies are more inclined to weigh long-term considerations, and to approach specific problems by methods best suited to their nature. Now long-term considerations usually require austerity for the present, i.e. sacrifices to be made for the sake of the future. Austere governmental decisions are not likely to be popular because people feel that the sacrifices are certain, while the results are not. Moreover, in a consolidated political environment and under stable power conditions the political bodies are

more ready to make "risky" decisions than in a politically uncertain situation. This attitude is understandable since the shaken popularity of a government benefits the forces of the political opposition even though these may have to make even less popular decisions later. Unfortunately, it is extremely difficult scientifically to determine the minimum of risk which must be taken by a government, i.e. the case when the lack of decision would cause even more serious economic and political damage. A government failing to fulfil its basic function, i.e. to take decisions and to lead the nation, cannot hope for a lasting existence. And it is objectively necessary that the nation be led to the path of economic growth which can only be attained by a specific combination of persuasion and indirect—and sometimes direct—coercions.

Notwithstanding, it is quite clear that the majority of the people—including the politicians—will be reserved, cautious and passive under uncertain power conditions. It may happen that some politicians compensate their passivity in economic questions with exaggerated "political" activity. But such a political activity, detached from its economic basis and relationships, becomes rootless and wanton.

b) A government with an uncertain political background is hardly able (or is only able at the price of great efforts) to transfer its will to the nation in the form of coercion to action. We wish to re-emphasize what we have mentioned earlier, in order to avoid any misunderstanding; we use the word "coercion to action" in the philosophical sense of the term, which means that we consider all efficient forms of transfer of will as a coercion to action, as far as the economic organizations are concerned.

The decisions of the central government are transferred into the economic life by means of the state apparatus, i.e. the local or regional administrative organs. We shall later come back to the aspects of power policy in decision making and economic control. Here we only want to point out that in a liquid and excitable political situation

- the decisions of the political bodies are generally not unequivocal,
- the internal contradiction existing within the political bodies are reflected also in the state apparatus,
- the uncertain power centres are not able to assert their will against the regional (tribal) organizations since, in the case of resistance, things would come to a crisis,
- the various economic sectors regard the governmental decisions as provisional compromises which can be expected to change within time both from inside (by the shifting of political power relations) and from outside (by the enhanced activity of the opposed political forces).

Therefore, the economic sectors concerned are reluctant to adopt as directives such central decisions as, though not openly contradicting their interests, require from them a substantial, and perhaps even demonstrative, adaptation to the new situation. Though such adaptation, when viewed from a long-term perspective, may turn out advantageous for the sector concerned, at present it frequently involves initial difficulties or requires the revision of some established conceptions.

In stable political circumstances all sectors, including the capitalist sector, are subject to such adaptation. But if the political situation is uncertain, they are less inclined to accept it, or will, more likely, feign adaptation.

### General and Particular Scarcity of Means

Without doubt, in the developing countries every conception or action aimed at economic growth comes up against the general and extreme scarcity of means. This has been discussed in connection with the criteria of weak economic development. But the transfer of will by the central economic leadership requires power or, more exactly, economic power in our case. Now economic power is inseparable from the quantity of disposable economic resources in the hands of those who want to transfer their will on the economy. Thus the scarcity of resources sets limits to the attainable economic targets. It also influences or even determines the methods applied for the central control of economic activities. When the centrally disposable resources are relatively abundant, the behaviour of the sectors, undertakings and individuals can be influenced mainly by economic measures, i.e. by the various forms of material incentives.

For instance, long-term and low-interest credits may be granted to the development of the favoured industries: or a comparatively high agrarian price level can be established in order to boost agricultural production. These possibilities are restricted in the developing countries, whence it is unavoidable to use such means as persuasion, coercion and prohibition. The necessity of using such methods, however, creates a fertile soil for voluntary and arbitrary economic actions. This is the climate for people, either politicians or civil servants, who look upon the application of these methods not as a "necessary evil" but exactly as the best form of central economic control. These people want to solve all economic problems by administrative prescriptions, and they must invariably fail. Political persuasion is the only adequate method to convince the masses, for instance, of the necessity of making sacrifices or of the correctness of a conception of economic policy. On the other hand, political persuasion is irrelevant in discussions relating to the choice of this or that form of enterprise management; such questions may be decided only on the basis of arguments and analyses pertaining to the domain of rational economic speculation. It is moreover necessary to distinguish between coercion and prohibition. Coercion, taken in its real, i.e. administrative rather than philosophical sense, means the compulsory prescription of a desirable action, or else the prohibition of a non-desirable action. Prohibition, on the other hand, means an economic disadvantage connected with the performance of a non-desirable action, in other words it is a "negative incentive". Under the newly created social circumstances of a developing country, both coercion and prohibition must be directed to the re-shaping of new social norms and behaviour patterns. Coercion and prohibition create social tensions: not because the old society had been built up on economic incentives but because administrative, social coercions and prohibi-

tions had turned into an accepted system of traditional norms of behaviour, and people do no longer feel its coercive nature. And now any coercive attempt at introducing new norms and shaping new attitudes involves a break-away from the inherited norms.

### The Simultaneous Presence in the Economy of Sectors Embodying Several Economico-historical Periods and Having Different Interests

Several sectors coexist in the developing countries and their nature is very different. In most economies there are 6 to 7 sectors in industry and 4 to 5 different sectors in agriculture. If the socio-political conditions of economic growth are present, i.e. ownership relations do not hamper growth explicitly, the national interest represented by the government tends to increase the production in all sectors. When dealing with the individual sectors, the government must observe three main requirements:

- a) the relationship between the interests of the individual sectors and those of the national economy which may result in: conflicts, frictions or approximate coincidence of interests;
- b) the impact, the growth of each sector has on the criteria of democratic social development and of social justice;
- c) the expansion coefficients and self-financing capacities of the sectors.

In addition to this, the effect of the growth of any one sector on the development and behaviour of all others must also be taken into account.

It is obvious that in such a multisector economy several contradictory requirements must be met. In such circumstances, the attitude of the government can not be invariably uniform and unanimous in every situation. This is quite obvious since contradictory situations cannot be solved by uniform norms. It is also evident that not only the government influences the changes and processes in the sectors but these also have a feedback effect on the way of thinking of the political bodies. The leaders of the political parties, of the state apparatus or of the army are linked by many tribal, religious family etc. ties with the people working in the various sectors.

It follows that the decisions affecting the different sectors must necessarily embody certain compromises, i.e. the different interests must be co-ordinated in the interest of action unity. It also follows that the sphere of actions may become the arena of more intense struggles than in the sphere of decisions.

It must be remembered that

- the compromises regarding actions are interpreted in a different manner by the representatives of the various sectors;
- the decisions reached are much too general in nature because they are formulated with the attempt of mitigating controversies, and that is why they can be interpreted in different ways;

– the power relations existing at the time of a decision may change in the period of its implementation and cause the latter to differ from the former.

The various sectors of economy can be influenced by very different methods. In some of them the quantity of the economic resources in the hands of the government is insufficient, in others (as in traditional agriculture) the economic incentives may fail to exert a substantial influence.

For each sector and each economic unit, from capitalist corporations to family farms, there exist threshold values which may turn their behaviour from friendly into neutral or from neutral into hostile. These threshold values should be clarified and predicted especially in the case of sectors whose collaboration is most needed but whose all too rapid or one-sided development would contradict the long-term endeavours of governmental economic policy. In this respect both the neglect of the real economic and political power relations and the lack of foresight and consistency may cause serious damage.

It is evident that the macro-economic national interests cannot always be reconciled with the special interests of all sectors. Hence, partly the central decision-making body must proceed from the real situation in making compromises, and partly the economic sectors must support government initiatives which, though not serving their direct interests, at least do not severely interfere with them.

### Weakness of Micro-economy

An additional difficulty of central economic control consists in the weakness of micro-economy. In capitalism, as we have pointed out, the domain of rational economic actions has been micro-economy until quite recently, but in the last three decades the micro-economic actions have been subject to a certain macro-economic co-ordination. This could be achieved thanks to three factors:

a) the growing role of the state in economic life, mainly owing to the redistribution of incomes and to a vigorous investment policy;

b) the unprecedented development of the dimensions of the enterprises, some of which can no longer be considered as "micro-economic units" within a country but rather as powerful international organizations comprising several countries or even continents;

c) the rapid development of science—cybernetics, in the first place—permitting a foresight of the effects of various economic actions exerted on other sectors and on the market as a whole, as well as upon general investment conditions.

The economic policy of the socialist countries has, from the very outset, endeavoured to extend the rational economic actions over the macro-economic sphere. The preconditions to this are more favourable in socialist ownership relations than any time before in human history.

Yet the high potential efficiency of rational economy cannot assert itself unless

– the economic environment constituting the precondition of rational economy, i.e. the market conditions, fulfil their functions,

— conditions are created by the economic decisions under which the micro-economy, while following its own interests and laws of motion, contributes to the implementation of the central conception.

It follows that what we need in socialist economy, too, are an adequate independence of the enterprises, their willingness of taking risks, of making quick decisions and their correct reactions to the market impulses.

In a developing country, however, micro-economy itself is underdeveloped. It must be created, strengthened and consolidated by impulses coming from the sphere of macro-economy. Many industrial enterprises must be created in compliance with the interests of the national economy, but also the production of the small enterprises and artisans should be directed through orders and credits so as to enable the backward sectors to develop. The creation of co-operatives should be encouraged in agriculture and trade. Hence, in a developing economy the task of the government is not only to co-ordinate, but also to create, to organize and stimulate units of micro-economy at a contemporary level. It should be realized that very little is going on outside the governmental initiatives, and even this little takes place in the old spirit. It follows that the government must carry on a constant activity in order to achieve the gradual establishment of contemporary micro-economy. It is evident that at this juncture economic "control" switches to immediate "action" in the first place, by creating the economic environment and conditions.

The government itself is also founding enterprises, particularly in contemporary large-scale industry. But in doing so it must keep in mind that the economy consists of many sectors. Decision makers must consider the interests of all such sectors and enterprises as are ready to act and satisfy needs within the framework of the national economy, in compliance with the fundamental principles of the economic policy framed by the government. Only under these conditions may an economic environment be established in which micro-economy will follow its own laws of motion.

The fact that in the developing countries the number and the weight of unpredictable factors is greater than in the advanced economies increases the difficulties of economic control. The world market prices and the changes in demand, for instance, constitute an independent variable from the viewpoint of the developing countries. Since these are import-sensitive and export-oriented, a change in prices (e.g. the fall of prices of the exported monocultural products, or the rising cost of certain staple imports) may upset the equilibrium of the whole economy. It is impossible to predict with complete certainty the situation on the international money and credit market. These are obviously such circumstances as are to be taken into consideration already during the shaping of any conception of economic policy. In a medium-range plan, however, usually no more than three variants are projected (maximum, minimum and medium) and the corresponding action variants worked out. If real developments, as a whole, take a course not suited to any of these variants, the implementation of the plan, as well as the operative economic control of the national economy must change elastically and rapidly.

## The Problem of Operative Economic Control

It follows that the decisive problem and the narrowest bottleneck in the developing countries is the operative economic control ensuring the implementation of the economic conception. That is why we have pointed out that a new scientific discipline is needed to develop and improve the system of operative economic control. There is no doubt that in this respect the experience gained in the advanced countries, where it is on its way to becoming a scientific discipline, can hardly constitute a substantial help to the developing countries, and that for several reasons:

a) The methods and means of operative economic control in the macro-economic sphere have not yet been worked out in the capitalist and socialist countries.

b) An operative economic control requires such a thorough and many-sided knowledge of the local conditions as is not and cannot be mastered by any foreign expert who has but a short time to get acquainted with them. Moreover, unlike in planning, in operative economic control thousands of experts would be needed, a number that cannot be granted from domestic resources. To engage foreigners by the hundred or thousand in operative jobs, even if it were economically possible, would not be advisable, since an all too high number of experts of operative economic control would then be giving instructions to domestic officials in the very intricate questions of national economic development, and this relationship would, indeed, hurt national feelings.

c) Undeveloped are the branches of political science which investigate the conditions of rational political action on the national level. Evidently, the problem of rational economic action in a centrally directed economy is inseparable from rational political action. That is why the study of operative economic control must extend to the examination of political relationships governing the members of the leading political bodies in their economic decision making.

We have earlier pointed out that economic control ensuring rational economic action in the macro-economic sphere materializes in two different, interrelated forms:

a) by means of a coherent conception co-ordinating the rational economic decisions within a system of interdependent actions,

b) by means of operative decisions and actions.

The aim of control in both cases is rational economic action, i.e. the creation of a state of things in which the economic sectors, organizations and the millions working in the economic sphere act in order to accelerate economic growth and to liquidate backwardness.

The central power directing the economy disposes of various means to meet this requirement. These means must be used in different combinations depending on the situation, the time, the task and the characteristics of the performers of the action.

The most important of these means are:

- a) economic incentives,
- b) administrative coercion or inhibition prescribing economic behaviour,
- c) the modernization of economic thinking through the new institutions, situations and needs,
- d) political persuasion in matters affecting the fate of large masses (standard of living, the acceptance of sacrifices, economic targets affecting the future of the whole nation, etc.),
- e) the training of experts and new leaders, their education for the accomplishment of the new tasks.

The two interrelated and supplementary forms of economic control cannot always be distinguished; the economic decisions born in the framework of the plan are to be revised from time to time owing to the changed circumstances, while the operative decisions and actions may be associated with targets which, in some shape or form, are included in the original conception of the plan. Yet not only the form of control but also its institutions are different. Obviously, both the coherent economico-political conception or the single operative decisions of paramount importance are born in the supreme political and power bodies. But decisions not affecting the fundamental principles of the conception may be made also by ministries or economic organizations. A fundamental requirement is possibly to decentralize the competence of decision making, since the decision motives and methods of the higher organs are so complicated and manifold—as will be explained later—that for decisions on concrete actions which require speed and determination, it is unwise to maintain a system of centralized decision making.

### Problems of the Decision Sphere—Political Power Factors

We shall now deal with the problems of the sphere of decisions, i.e. shall endeavour to elucidate

- what central organs take part in decision making,
- what motives underlie the attitudes of the organs and individuals making decisions, and
- what are the combinations in which the political power strives to consolidate its position by means of economic decisions.

The political power factors in the developing countries are partly contemporary, partly traditional. Among the contemporary political power factors we may mention the following:

- a) the political party or parties,
- b) the central state apparatus (administration),
- c) the army,
- d) the trade unions,
- e) the individuals embodying the power of the contemporary economic sectors (for example, entrepreneurs, businessmen, etc.).



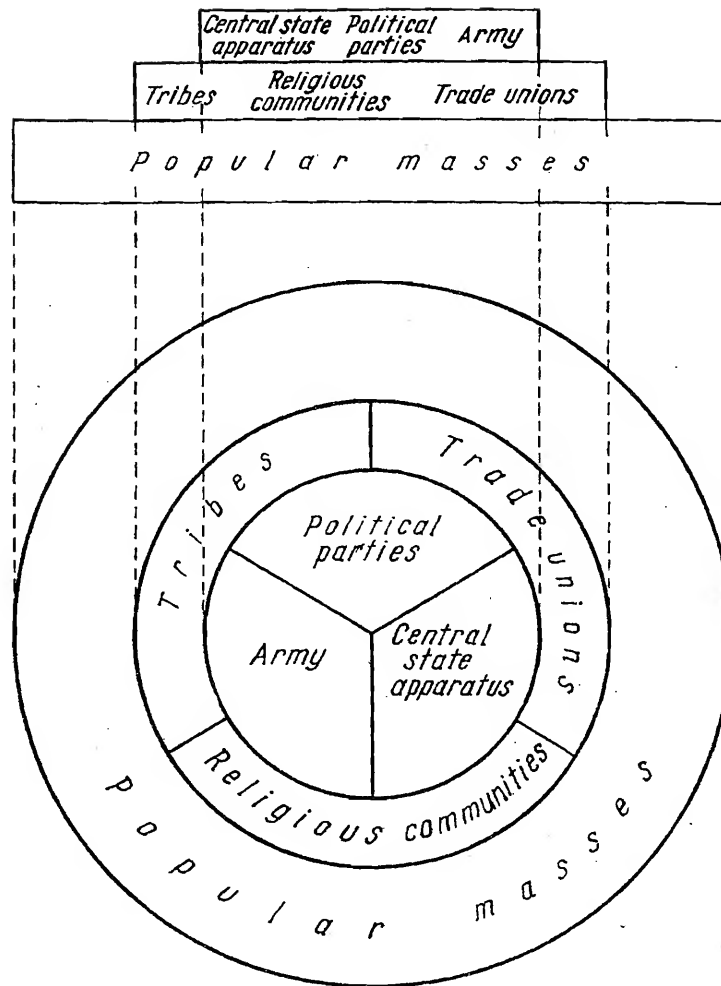
This classification requires no particular motivation, yet we want to refer briefly to experience showing that the conception of an unpoliticized army—as developed in the West-European bourgeois democracies—has proved illusory in the developing countries. Evidently, when a new state, a new centre of power is born, it is inconceivable that the army, itself one of the power factors, could remain non-political to the extent that its leaders carry out the orders of the chief of state unconditionally, i.e. without acquiring or strengthening the political ambitions of their own.

Part of the contemporary factors of political power have their place within the power while others (for instance, the trade unions) may adopt very different attitudes in relation to, or against, power.

Among the traditional political-power factors we may mention the priesthood and partly the tribal, or other regional, organizations. Here, too, we wish to explain why we regard priesthood as a traditional power factor. It is well known that in earlier centuries the priests fulfilled also certain economic functions in many societies, partly by prescribing moral and even technological norms of economic behaviour, but partly also by direct economic activity, mainly through land owned by religious communities. On the strength of their vocation, the religions attempted to approach all problems, including the economic ones, from the ethical angle. Thus the early interpretations and views concerning economy are known to have been born on moral grounds. Now the spreading of the norms of rational economic action runs against such traditional moral views as condemn the aspirations to profit, and the regulation of interhuman relations on the basis of economic agreements. In addition to this, since the views of the religions concerning economic relations go back to early historic conditions, many of their prescriptions have become obstacles to sound economic growth (e.g. those relating to nutrition and fasting). Hence the economic aspirations of power necessarily run into many formal regulations of religion. Whether the representatives of religion adopt an attitude of opposition or one of reconciliation with new conditions, they are necessarily engaged in politics, by either opposing or promoting the endeavours of the political power. It logically follows from the nature of political struggles that, when they remain in opposition, they become a "political countercentre" rallying a considerable part of social groups which for one reason or another are opposed to the introduction of new norms of economic action. On the other hand, the religious leaders who tend to account for modern requirements are sharply attacked by those who are opposed to the government mainly for reasons other than religious, and also by those who, for reasons of principle, remain faithful to the old religious prescriptions.

The power-political factors in the developing countries could be illustrated as shown on p. 404.

The internal sphere of the factors of political power consists—in a developing country—of the party, the state apparatus and the army. In the outer circle we find the trade unions, the religious or the tribal-regional organizations. The function of the trade unions naturally differs from that of the religious or tribal organ-



The political power factors in developing countries

izations since they embody a contemporary way of thinking and aspirations, represent progressive masses and modern organizational principles. They, however, do not belong to the inner circle of political power since several of their aspirations and of the interests of their members are in conflict in many respects with the policy of the power developed in practice. On the other hand, owing to their contemporary views and organization and despite their relatively small number, organized workers may counteract the conservative and retarding influences coming from the outer circle they belong to. Hence it is not desirable for the governing power to curtail the independence of the trade unions to a too great extent.

In this case, namely, the population may tend to regard them as belonging to the "inner circle" and accordingly withdraw their confidence in them, with the result that the possible opposition will condense exclusively in the traditional, religious or tribal organizations. In this manner all effects coming from the outer circle towards the centre become conservative, resulting in the isolation of the central power. And an isolated governing power has a smaller impact on the outer circle than this has upon the inner one. Obviously, it is politically less expedient forcibly to reduce the opposition which necessarily arises and to keep it off the sphere of the central power, but to maintain a certain balance between the divergent forces, aims and organizational potentials working with the opposition. In such a situation it becomes possible from time to time for the governing power to interfere advantageously, to acquire thereby an authority of an arbiter and to establish useful contacts with the outer circle.

The actual situation is, naturally, much more complicated than what has been outlined above. Power groups established on an institutional basis are evidently intersected also by other lines of force. Part of these power factors enumerated above (e.g. the political party) is likely to penetrate and influence also the others, whereas other power factors can more clearly be outlined and are acting mostly in their own spheres.

But the groups formed on an institutional basis are intersected by lines of force stemming from family, tribal, religious and other connections. The lines crossing the inner and the outer circles are the transmitters of effects and countereffects in both directions. The intensity of the impact depends on the general situation and on the political inventiveness of the parties. On the other hand, all members or partisans of this or that institution are not uniformly close to the power. Evidently, there are tremendous differences between a member of the political committee and a simple member of the party, between the minister and the junior clerks in his ministry, between the general and the enlisted soldier.

### The Stratum of Leaders

In practice the leaders of the institutions within the inner circle constitute the leading layer, i.e. the community of those who, on the strength of their conviction and merits, are mainly interested in the maintenance and consolidation of the system, in the prosperity of the regime. This layer is completed from other sources. Obviously, the most successful participants of economic life (capitalists, managers, directors of state enterprises) are part of the leading stratum since they, too, are concerned with the maintenance and the prosperity of the regime. And, even though preserving their independence and counterbalancing influence, the trade union leaders in the developing countries seem to be in a close contact with the political or economic leaders constituting the inner circle. (In this connection let us again refer to the key position of the political party whose leaders represent the in-

ner circle of power but, at the same time, have a wide contact with the masses.) Also the more conciliable and respectable religious and tribal leaders can frequently be regarded as part of the leading stratum. Many arguments could be adduced to stress the expedient character of such a situation since it is quite evident that the religious and tribal leaders must be subject to influence by the governing power in some way or other. Indeed, a peculiar community of interests may develop between the governing power and the loyal religious and tribal leaders since any political repercussion may jeopardize also the position of the latter, if some of their possible rivals have joined the opposition.

We have so far described a leading layer as can be formed only if a well operating, fairly wide national unity is created by the governing power. Otherwise the inner circle of power becomes isolated, with the result that the effects and countereffects of an intercourse between the inner and the outer circles diminish to the minimum. In the perspective of a medium or long period this situation is always more dangerous to the governing power than to the traditional political factors. This is evident since the groups and masses following the traditional political factors are in the majority, and their opposition to the governing power tends to increase their number and forces. In the interest of social and economic transformation the government needs an ever growing influence on the groups and individuals, having initially belonged to the camp of the traditional political forces. If there is no such influence, if the governing power isolates itself or turns inside, no socio-economic transformation can ensue.

If, on the other hand, an intensive intercourse and mutual relationship develop between the inner and the outer circles, then—by the nature of things—the governing power must rely on layers having different interests and, accordingly, it will be more inclined to compromises. But, when power embraces many shades and recognizes the necessity of compromises, various different trends crop up. This differentiation follows the views, interests and attitudes in questions of tactics professed and adopted by the various groups and individuals in power. Most likely, a radical and a conservative wing will develop, with a centre between them bridging the gap. Two types of radicalism should be distinguished which could be referred to as “essential” and “institutional”.

Essential radicalism means that a group of rulers wishes to follow aims reaching farther than those set by the others. Such a group feels that the time has come for the government to oppose more boldly and more openly the pressure of the imperialist countries or world monopolies, to nationalize important domestic and foreign-owned enterprises, vigorously to reduce the outdated economic sectors and to act more energetically and openly against illoyal religious or tribal leaders. Such a radical wing wishes to adopt bolder conceptions of economic policy, professes the necessity of a more rapid economic growth, of a more intensive accumulation and a more vigorous industrialization. Other ruling groups, obviously, assume a more conservative attitude, requiring more caution, assessing the power relations realistically, and stressing the dangerous consequences of nationalization or of the suppression of religious or tribal leaders.

These views, naturally, reappear in all concrete situations and in the attitudes to both overall economic conceptions and single operative decisions. In the discussions the attitude of the centre, trying to mitigate the differences of opinions, usually prevails.

Institutional radicalism aspires to the undivided possession of power, that is, it wishes to exclude all other institutions or organizations from decision making, as well as from the distribution of funds or key positions. Most exponents of institutional radicalism think not in terms of a nation and of the diversity of the political factors but in terms of one single organization or movement. That is why they would designate as "opportunists" all those who admonish to consider the interests and rights of the forces that are federated with them in the possession of power.

The views represented by institutional radicalism also have their say in every dispute concerning decisions of economic policy, but these radicals tend to concentrate their energies on the questions of implementation rather than on the essential problems.

They gain a certain ground in every institution, since concessions made to other institutions are never popular, the remedies suggested by them look simple and their arguments are liable to churn up passion any time. They often make it difficult for the political leaders who think in terms of the nation and of the diversity of social institutions; experience does not readily prove that such requirements are wrong.

If the contradictions within the inner circle become very sharp, it may occur that some participant of the struggle takes advantage of the support of the outer circle. This is a rather risky step since it may involve an essential shift in the power relations. Such dissenting elements of the inner circle of power look upon this alliance as transitional and, having attained their goals, will again wish to limit the influence of the outer factors. It, however, remains an open question whether this will still be permitted by the power relations when the struggle is over.

Finally, different features may be detected even in the behaviour and conceptions constituting the inner circle of power. In particularly grave situations these differences may become so acute that one institution may in its totality turn against another institution to confine or stop its influence. In this respect very sharp conflicts may develop particularly between the political party and the army. It also occurs that incorrect measures taken by the government, extravagant spendings of the leading layer or measures directed to reduce the standard of living of the workers induce the trade unions to turn against the government and to require the revision of its economic policy.

### Power Balance in Danger

Struggles within the ruling power are, naturally, unavoidable. It is reasonable to permit all forces in the inner and the outer circles of power to have their say, at least all those representing any real force.

However, the very existence of the ruling circle is jeopardized,

- if, in their struggle against one another, the internal forces avail themselves of the forces of the outer circle of power,

- if the conflicts in the field of foreign policy assume an extent where one of the parties resorts to the aid of foreign powers,

- if the political clashes attain an extent that no longer permits the differences to be bridged by political means. In this case the army necessarily intervenes and seizes power. The political power must account for the fact that the army, owing to its nature and discipline, is always able to create a unity of actions, at least for a short duration of time. The power can be seized by the army within a matter of hours or days, but later on the dividing factors must invariably appear.

When describing the consequences of the struggles within the ruling circle we have not examined the question of who is "right" and who is "wrong", nor were we concerned with the reasons and aims causing one fraction of the inner circle to resort to forces of the outer circle or even to foreign powers. Such counterforces, however, become active as soon as any group, whether progressive or conservative, turns for help to forces outside the inner circle or to a foreign power. This invariably means the threat of civil war, in which also foreign powers may become active. In such a situation, the duration of the civil war depends on the extent to which the foreign powers are interested.

Hence only two of the three political forces constituting the core of the ruling circles (that is, the political party and the army) are able to acquire and preserve power and to determine the fundamental norms of political action. Evidently the state administration must rely on both of these since it is not able to carry out its conception without them. (However, the state administration also possesses forces of its own; on its directing, organizing and controlling activities rests the implementation of the fundamental principles of economic policy and of the development targets.)

A political party with a wide mass support is the political force capable of influencing an economic conception in the making, as well as its implementation. What is more, it can influence the reaction of the masses on these measures. In this sense a political party may also become capable of bridging in some way or other, the contradictions and tensions existing between the inner and the outer circles of power. Obviously, the inner and outer circles of power assert themselves not only on the national but also on the local level, in the villages and towns.

In this respect the local member of the party, the administrative head of the community or the military commander belong to the inner circle of power whereas the trade union functionaries, the religious or tribal leaders belong to the outer circle. If, on the national level, there is a heavy tension between the institutions and representatives of the inner and outer power circles, no fruitful interaction can be expected on the local level either. What is more, in local respect the conflicts assume usually much sharper forms than on the upper level where they appear in a more abstract shape because national leaders are more cautious on account of their

political experience and more aware of the consequences of a rupture with their allies. Under local conditions, the subdued and withheld emotions and passions are more likely to result in repercussions.

When the conflicts between the inner and outer circles assume such serious forms, the local exponents of the political party are no longer able to influence the people. The masses influenced by tribal or religious leaders react with suspicion to all endeavours coming from the government. Thus the local representatives of power become isolated. When reporting on the situation to the central organs, they usually assume one of these attitudes:

a) they depict the local situation in colours much brighter than the actual situation deserves, lest they would reveal their own incapacities and inadequateness,

b) they depict the leaders of the outer circle as stubborn and inveterate enemies of the government and of the new society, especially when the atmosphere of national politics is laden with tensions.

The political party can only fulfil its task of connecting the outer and the inner circles if it is able to influence the masses by means of persuasion. To enact coercive measures is the task of others (chiefly of the army). Thus, the more frequently the party recurs to violence, the more superfluous it makes itself, displaying thereby that the key to power is in the hands of the army. On the other hand, when the outer power circle (and with it, most of the nation) deliberately evades the influence of the party, and ceases to contribute to the solution of the economic and social tasks, economic and social development must stop.

I think it is evident from what has been expounded that economic growth must be achieved amidst extremely intricate social and political circumstances. These complicated relationships of political power make themselves felt at every level of rational economic action, that is

- in the preparation of decisions,
- in decision-making,
- in the course of implementation,
- in the activity of the economic sectors and organizations.

### Management of the Various Sectors

Having outlined the relations of political power we shall now analyse the activities of the sectors participating in economic growth. Our analysis will rely partly on criteria of power relations and partly on purely economic aspects. Hence we shall study:

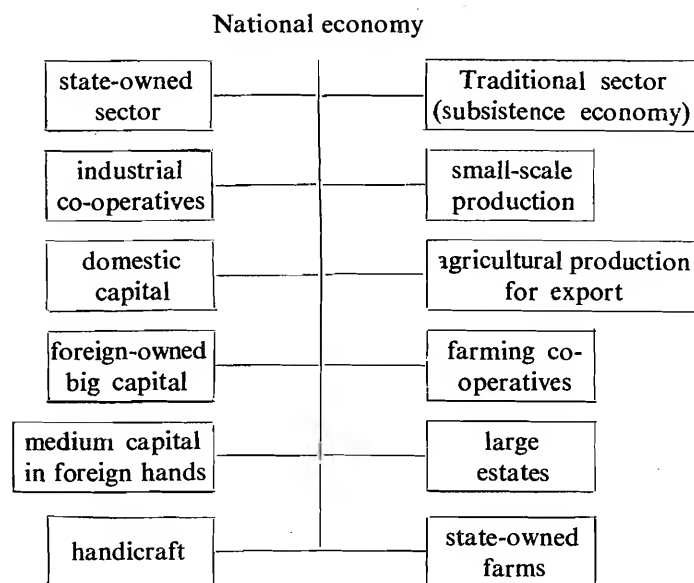
a) the internal nature of the economic and social sectors, the laws underlying their operation, their capacity for expansion and their anticipated behaviour in the course of economic growth,

b) their direct or indirect relations to political power,

c) their immediate goals in relation to the interests of the national economy,  
 d) the quantity of state-owned resources necessary to accelerate the growth of the individual sectors and the economic problems deriving therefrom.

Evidently, these analyses must be undertaken for both short and long periods since with time the operation principle of the various sectors will transform, as do the political power and its targets. In addition an increased ability of agriculture to achieve rational economic actions can be reckoned with.

In a developing economy the activities of the following sectors must be taken into account:



The operation of a multisector economy, the mutual impacts of the sectors upon, and their transition into one another cannot be exactly represented by any scheme. Yet our rough sketch gives certain information on how the different interests, degrees of advancement and reaction capacities are to be co-ordinated by the economic leadership into a macro-economic action unity.

According to their nature and capacity of expansion, more or less advanced sectors (partly traditional ones) may be distinguished. The degree of advancement and the expansion capacity of the sectors rank them into six groups:

- 'A' the state-owned sector,
- 'B' the co-operative industry,
- 'C' the domestic capitalist enterprises,
- 'D' the foreign-owned big capitalist enterprises,
- 'E' the state-owned farms,
- 'F' the agricultural co-operatives.



With regard to the sectors assigned to Group A let it be mentioned that while foreign big capital is able to finance its own investments, the co-operative industry, domestic capitalist enterprises and the agricultural co-operatives need support from the state (a particularly important form of which is the granting of long-term credits); finally, the material means necessary for the development of the state sector must be financed wholly or partially by the state budget.

To Group B belongs the medium-size foreign capital which, owing to its strong tendency to liquidity, is found mostly invested in trade. Thus, it does not contribute to the increase of production and hampers the proportionate distribution of capital accumulated between the branches of economy. The government will have to make efforts to lure at least part of this capital into production. If this is not possible on account of the behaviour of the sector or owing to general political conditions, this sector is rather an obstacle than a contribution to economic growth.

To Group C belongs the small-scale industry and handicrafts with very small capital and much manpower. These sectors are unable to contribute to a rapid increase of production; yet they are important because of employing the manpower that cannot be engaged in any other sector, owing to the scarcity of capital. Also the commodities supplied by these sectors are indispensable for both the domestic population and for the increase of export. These sectors should be supported mainly by credits permitting the acquisition of the necessary raw materials and by granting them export markets.

To Group D belongs small-scale agricultural production whether for domestic purposes or for export. This sector plays a very important part in agriculture and, with adequate support by government and with a more productive labour input, it may even increase its production. Support by the state should consist in distributing means of production, chiefly fertilizers and simple machines. In previous chapters we have pointed out that agriculture plays a decisive role in securing economic equilibrium.

To Group E belongs the latifundia which, as has been mentioned earlier, are coupled either with capitalist plantation farming in some countries or with the more or less feudal system of rents in others. In the latter case there is no possibility whatsoever of developing production since the owner does not wish, and the tenant is not able to invest. Plantation farming plays in most cases an important role in securing agricultural export. But this type of farming is an obstacle to the development of industry because the landed aristocracy consumes mostly imported luxury articles whereas the wage-earning workers are unable to buy industrial commodities.

In the case of both types of large estates efforts should be made to induce the landlords to invest in industry both before and after the land reform and thus contribute to the supply of industrial capital. Both types should be substituted by farming co-operatives or small proprietors who—helped by proper state support—will be capable of maintaining and then increasing the level of agricultural commodity production.

To Group F belongs to what we call traditional agriculture. The modernization of this sector is one of the decisive problems of economic growth. In its present form it has no possibilities of expansion. Later we shall come back to the problems connected with the handling and influencing of the traditional sector.

### The Relation of Political Power to the Economic Sectors

The relation of political power to the economic sectors has a decisive influence on the economic decisions of political bodies, involving relative changes in the weight of the various sectors. When talking about the internal structure of power we have pointed out that the political bodies are not homogeneous, and that radical and conservative views on questions of aims or institutions are asserted within them. When dealing with the relationship between the governing power and the economic sectors we shall not investigate the problem of struggles and differences of opinions within the political bodies. These will be analysed later.

The state-owned and the co-operative sectors of the economy are, evidently, more ready to follow the instructions of the government. The existence of the first, and the development of the second, depend on the intentions and the support of the state. On the other hand, the consolidation of these sectors is able to strengthen the economic position and social influence of governments. But the strengthening of the state-owned and co-operative sectors can only be achieved through adequate government policy. Thus the government must consider the following viewpoints:

a) The state-owned and co-operative sectors are also submitted to the laws of operation of the micro-economy. That is why wide independence and liberty of action must be granted to them. State control must not extend beyond determining overall relationships between their operation and the rest of national economy. Otherwise these sectors become part of "red tape".

b) The state-owned sector must be managed according to the principle of economic efficiency, that is, it is supposed to meet the needs with the funds used so as to acquire an appropriate profit (or, more exactly, a net income for society). It should be remembered that the state-owned and the co-operative sectors vie with sectors stronger both in capital and in mobility. If they are entrusted with the least profitable production tasks and deliberately burdened with deficits, their feeling of responsibility for economic efficiency will be damaged. Again, care should be taken not to over support these sectors since they may then turn into parasites, wishing to be kept going by the rest of the national economy, chiefly at the cost of the consumers, the taxpayers.

b) The leading posts in the state enterprises must be prevented, with all available forces, from being given to persons for their own or for their relatives' political merits, particularly when their education and practical experience are not in keeping with the requirements.

The development of the state-owned and co-operative sectors requires large funds amongst a general scarcity in capital. On the other hand, a too rapid development of these sectors can elicit uncertainty in other sectors which may then refrain from investments.

### Domestic Capital in Production

Domestic capital invested in or striving into production may play a positive role for long decades in the process of economic growth. Obviously, a country chronically poor in capital cannot rely exclusively on domestic accumulation and cannot dispense with foreign investments. Yet the latter play a negative role in national economy because they are connected with the transfer of part of the profits, as well as by lessening thus the authority of domestic economic control. Domestic capitalists being in competition with their foreign colleagues need the support of the government. The production tasks solved by the domestic capitalists could, in theory, be fulfilled also by the state-owned or co-operative industry. But in this case the investments would have to be granted by the state, not to mention necessary organizational and guiding capacities which are not yet available. The process of concentration in world economy follows such tendencies the realization of which would make the national independence of the developing countries illusory.

Any domestic capital capable of meeting increasing internal demand without becoming subject to the influence of foreign capital may play a positive role in the struggle for the economic independence of the country in question. But in our days, even in the economically advanced smaller countries, private capital can aspire to this when co-operating with the state. This co-operation may materialize in joint enterprises of private and state-owned capital if the state is ready and able to participate.

Thus the expansion potential of the domestic capital invested in production may adequately be exploited in loyal co-operation with the state. The domestic capital must, naturally, adopt a contemporary way of thinking, i.e. discard the forms of exploitation known from the times of classical capitalism and of colonial rule.

But evidently certain conflicts are bound to arise between the government and the domestic capital concerning the concrete economic and social situation and the perspectives of further development. For instance the prosperity of a capitalist entrepreneur, not surprisingly, elicits discontent among the radical layers which otherwise would support the government. Sharp conflicts might arise between the entrepreneur and the trade unions in the matter of conditions of work and payment.

Co-operation with domestic capital involves many difficulties for the government. The activity of the domestic capitalist only becomes useful for the national economy if he agrees to a co-operation with the government and recognizes that, without the government measures taken for the protection of his industry, he would not be able to compete with foreign capital. The government should make every reasonable effort to increase its economic influence.

## Foreign Capital

Concerning the direct investments of foreign capital, as has been said before, we do not look upon them as healthy phenomena for internal economic development. Other methods should be used to direct capital accumulated in rich countries into developing ones. We shall deal with these methods in the subsequent part of this monograph, in connection with world-economic problems.

The foreign capital settled in the country is usually an "enclave", i.e. a closed body which the government is unable to influence but which, by means of power relations, is capable of directing the government by indirect methods and—in particularly sharp crises—even of overthrowing it. As long as this situation subsists, the activity of the foreign capital settled in the country runs against national interests, against the independence and the political and social endeavours of the government.

No change in this respect may be expected unless the government of the creditor country or international organizations put a brake on the activities of such capital. A third possibility is nationalization, but this can only be achieved under favourable international circumstances, or on the basis of a preliminary agreement with the government of the country in question.

Medium or small foreign capital also plays a negative part in the economy. As is known, this type of capital aspires to liquidity and, accordingly, is invested mainly in trade and banking. Thus it tends to exploit for its own benefit every economic difficulty, enhancing thereby the troubles. By the nature of things, in its speculations it often anticipates the difficulties before they really appear and thus becomes interested in eliciting them. When trouble is brewing it helps the capital to flee into foreign banks. We, naturally, do not wish to give an ethical qualification of the economic sectors and are fully aware that this behaviour of the capital has deep historic roots. For the national economy and the state it is, however, indifferent what motives underlie this action or instinctive attitude. Hence the relationship between the governing power and this category of foreign capital is necessarily bad. In addition, the population is shocked by this behaviour of capitalists and businessmen. In this case the intentions of the government and the emotions of the population run parallel and are ready to meet, often leading to serious and even drastic measures and consequences. (Let it be mentioned in parentheses—since this is an economic monograph and not the analysis of the dramatic tensions in individual or group tragedies—that this layer wishes to avoid its fate by maintaining maximum liquidity, yet it is exactly by this form of evasion that it calls forth its own destiny.) The relationship between the government and the medium-size foreign capital may only change if the capital—under the impact of certain state guarantees—goes over from speculation to production.

Small-scale industry and handicrafts, as has been pointed out, will for long decades play a very positive role in the national economy inasmuch as they meet domestic demand and eventually even provide for some exports without requiring capital, and at the same time contribute to the employment of surplus manpower.

Moreover, the small industry and handicraft help train manpower for the big industries to be developed. This process should be promoted by appropriate measures.

If the government wishes to raise production, the capacity of this sector can always be increased since in most cases the supply of labour is practically unlimited. The government can help this sector partly by granting raw-material credits, partly by creating foreign markets. Thereby, the attitude of this sector is likely to become friendly towards the governing power.

This mutual relationship is, naturally, influenced by many other factors since most of those occupied in this sector adhere to some religion or may be closely associated with their tribes. This is a typical case to show that a complex of problems as intricate as the relationship between the governing power and the economic sectors cannot be characterized by one or a few, however important, criteria.

### Sectors in Agriculture

The layer of the big landowners usually wishes to command the government indirectly or directly. If the government is hostile or unfriendly towards them, they withdraw into passive resistance. But even so their influence tends to remain very strong, especially if the tenure of land also depends on them. Their position is reinforced in most countries by the fact that, while the big and medium capital is concentrated in the hands of foreigners, the layer of landlords is, or at least seems to be, of a national character.

In many countries, landlords possess the vast majority of the cultivated area. When and where they are farming on their own account, they tend to produce chiefly export goods and, among these, mainly such commodities as can be produced by extensive farming methods. In such countries they have a direct impact on public opinion, on the national attitude and on political life alike.

If, on the other hand, the rental system prevails, the landowners tend to consume or partly thesaurate their incomes, or else to invest them in foreign securities rather than in agricultural development.

The attitude of the landlords is necessarily hostile towards any government not complying with their ambitions. In most cases they have strong contacts with the religious leaders and with the conservative elements within the power. In the interests of the national economy and of a democratic political development it is desirable to carry out a gradual land reform allowing time for the land-renting co-operatives to develop and thus to maintain or even raise agricultural yields. If the political power relations make indemnification unavoidable, the layer of landowners should be compensated with shares in industrial corporations and it should be encouraged that their formerly thesaurated or foreign-invested funds be also invested in the development of the national economy.

The developing countries can, of course, not ensure such an extent of compensation as was ensured in Great Britain when the coal mines were nationalized, quite

apart from the question of principle whether the abolishing of feudal rights should involve any form of compensation.

Farming co-operatives may be created in various ways. In some cases, the tenants of an area may already have organized a co-operative, and this form of organization is maintained even after they become the owners of this area. But farming co-operatives can be formed also as the free alliances of peasants owning adjacent plots, and even as parts of social formations embracing all activities of a rural community.

The relation of the co-operatives to the progressive governments is good, their existence being closely linked to the fate of the regime. They have at least one enemy in common, the layer of the landlords. In addition, their prosperity is inseparable from the credits and other forms of assistance granted by the government, extending from the construction of irrigation works to the sending of experts into the co-operatives.

The rate of development of co-operatives depends first of all on how quickly they are able to rear economic leaders of their own who are able to organize the production and marketing activities by contemporary methods. The co-operatives that succeed in accomplishing this will play an important part in the increase of agricultural production. The problem is that the co-operatives comprise people of very different abilities, diligence and working capacity. These qualities of the members will decide whether the growth of production and rentability attain or lag behind that of the other sectors. When the incomes of the membership fail to attain an acceptable level, this prompts the talented and industrious manpower will leave the co-operatives, whereby the situation further deteriorates. It is of paramount importance to introduce a system of income distribution based on the quantity and quality of the work performed by the members.

Also the members of farming co-operatives are strongly subject to religious and tribal influences. This should always be kept in mind when making decisions concerning the future of the relationship between the government and the religious and tribal organizations.

Small-scale farming plays a considerable part in economic growth, irrespective of whether its products go for export or to the home market.

Hence the government must endeavour, in the course of the first decades of economic development, to encourage small-scale farming. No doubt, this sector, with adequate support, can develop its production very quickly. Under the present conditions of tropical agriculture, government assistance to both the co-operatives and small farmers must include a wide variety of activities. In Chapter 9, dealing with the agricultural problems, we have already pointed out that irrigation, soil conservation and improvement, the propagation of fertilizers, simple agricultural machines and more contemporary techniques are necessary to make production rise in accordance with demand. All these can only be secured with the assistance of the government. True, the implementation of the overall measures required, costs considerable time and resources. But even in the meantime, the loyalty, the diligence and economic interests (to be enhanced by an appropriate price policy) of the small farmers may achieve considerable results.

It is thus evident that the interests of the governing power and of the small farmer go parallel in the long run. This statement does not mean, of course, that there are no conflicts between these interests. Of these conflicts let us mention the greatest and the gravest—the question of the taxation of agriculture. Farmers all over the world are very reluctant to pay taxes, but nowhere is this reluctance more justified than in the developing countries where peasants are extremely poor in capital and even undernourished. In most cases, they are additionally handicapped by the gap between the prices they get for their products and those of their modest purchases of industrial articles. Under such conditions, taxes substantially affect the very maintenance of their capacity of working, not to mention the investments in production. For them, any rise in production is inseparable from their nutritional standards and from a minimum of investment. It is thus understandable that the imposition of taxes on agriculture causes great political and economic tensions.

Yet, when laying the foundations of industry and building up of a new state organization, the governments of the developing countries can hardly if ever avoid imposing taxes on agriculture. This, however, should be prepared by deep-going economic computations, in order to find the level which is sufficient for the national economy and tolerable for the peasantry. Otherwise the conflicts developing in the short run will blur the long-term community of interests, and the small farmer will turn against the government.

It also should be remembered that the small farmer is under the strong influence of religious and tribal organizations. It would, for instance, have catastrophic results if, after a deterioration of the relations with the religious communities and the tribes, a seemingly intolerable tax were to be imposed on the peasantry. It may, of course, be hoped that the internal forces maintaining order remain masters of the situation (although the contrary has more than once occurred), but production is one thing and the maintenance of order is another. If order can only be maintained by policing, then there is no production and no economic growth. ("You cannot sit on bayonets"—said one of the fathers of Prussian imperialism.)

Hence the government should take special care to maintain good relations with the small-scale producers.

Theoretically there are no objective contradictions of interests between the state and traditional agriculture either. The state is basically interested in increasing production also in the traditional agriculture, yet this can no longer function within the old framework owing to the changed conditions and the rapid population growth. The question is when traditional agriculture realizes this fact. For the time being its way of thinking and its reactions frequently go beyond the sphere of rational economic actions. The government has two reasons for trying to introduce the idea of the necessity of changing traditional agriculture. One of these reasons is the postulate of the national-economic interest and of economic growth. The other is the protection of the millions living in traditional economy from avoidable difficulties and sufferings. For people thinking in terms of economic history it is obvious that if traditional economy remains unchanged, it will face catastrophe,

i.e. famine and untold sufferings. Humaneness itself demands the ruling power to make every effort to change the situation.

The problem consists in how to introduce the elements of the changes required by the age and history, into the traditional economy.

Theoretically two methods are available: one is the ruthless destruction of the old forms, the other is to give new content to them. Historical examples by the thousand show that the first method may lead to the extinction of whole races or at least to their opposing the contemporary norms. These methods may be applied by aggressive and greedy conquerors (who are not interested in consequences) but must not be used by a progressive government against its own people. The only alternative is the second method, yet this also involves dangers and difficulties. The use of the tribal system for introducing contemporary farming and public thinking is a contradiction in itself. Yet contradictions must not be feared; life is full of them. The introduction of new content through old forms requires a tremendous intellectual and moral concentration, tolerance, wisdom and determination from the government. The task is not insoluble, if the agreements are concluded through the tribe, if the stimulation is diffused through the tribe, because community in a sense, existed prior to the individual, and the individual has not yet been detached from it in many respects. Hence one individual or a group of individuals may not be expected to stand up against the way of living of the tribe which has been handed down from primeval times to the present generation.

It follows that the progress of traditional agriculture may, in many cases, be promoted by co-operation with the tribes. In other words, a fertile relationship between the state and the traditional agriculture may evolve on the basis of confidence between the ruling power and the tribes.

### The Efficiency of the Individual Economic Sectors in Solving Production Tasks

In the present-day developing economies every sector has a certain social (national-economic) function. It satisfies some needs on the market of investments or consumer goods, ensures living, even though on a low standard, for tens or hundreds of thousands of people, perhaps even yields an export surplus in certain goods and thereby additional import possibilities. In this sense every sector fulfils useful functions within the national economy.

But if we apply the postulate of rational economic activity to the entire national economy, an answer must be found to the question what the ratio of the function of a sector is to the amount of resources used while performing this function. In other words, what is the economic efficiency of that sector for the national economy? There are economic sectors functioning efficiently in themselves, i.e. gaining substantial profits, yet for the national economy they are not efficient since they use too large an amount of resources to achieve their results. A possible ex-



ception is, among the resources used, live labour. Even sectors absorbing vast quantities of live labour with poor efficiency must sometimes be tolerated, that is, until possibilities of a more efficient employment are not yet present.

Viewed from the angle of national economy, not only the production targets must be chosen rationally but also should the distribution of incomes comply with the principles of social justice and the desirable investment structure alike. If sectoral economic activities work against the proportionate distribution of the purchasing power and result in the concentration of incomes in the hands of a few persons, then industry will have no internal market and economic growth will suddenly stop. If the bulk of profit appears in sectors whose expansion possibilities are obviously limited by the world market and if these profits cannot be canalized by redistributing the national income, into investments advantageous for the national economy or, again, if certain sectors which may expatriate their profits are exempt from the redistribution of income, then no investment funds will be available for industries whose development is of vital importance for the national economy. Economic efficiency must be viewed from the angle of the nation, and of the principle of rational economic action.

With due regard to the requirements of national-economic efficiency, the activities of the various economic sectors are found to differ substantially.

Generally it may be said that under conditions of an adequate economic policy and entrepreneurial independence, the endeavours of the state-owned and the co-operative sectors coincide or may coincide with the postulates of rational action taken in the national-economic sense. Here again we wish to stress that this is not an automatic coincidence. When mistakes are committed in economic policy and/or in operative economic control, the concrete activity of the state-owned and co-operative sectors may differ from the norms of rational economic action taken in the macro-economic sense.

On the other hand, it is impossible to achieve that the activity of the domestic private capital should completely comply with the interests of the national economy. In this respect the state can obviously mitigate but not stop the unreasonable (or less reasonable) distribution of the incomes, unreasonable from the viewpoint of the purchasing power and of the investment needs. This irrationality which derives from the nature of capitalist economy can be mitigated by two methods:

- a) by imposing heavy taxes on profits in order to redistribute incomes,
- b) by the development of capitalist enterprises of a vertical character. (In this case, the capitalist benefiting from the less dynamic industries will invest in dynamic industries, i.e. in those more desirable for the national economy.)

Co-operation with the government mitigates the harmful effects of the operation of the domestic private capital and encourages the moves of the capital to approach the rational economic action taken in the macro-economic sense.

Compared to their function, i.e. to the needs satisfied by them, foreign capitalist enterprises yield a disproportionate, unjustifiable amount of profit, a large part of which they expatriate. Hence, in the developing countries an enterprise which, taken by itself, operates rationally, may prove to be less rational, often

quite irrational from the macro-economic angle. In addition to this, in the case of foreign capital there is hardly any possibility of redistributing the incomes.

The situation is even worse in connection with the medium-size foreign capital which, in addition to this, seldom performs any production task. It naturally fulfils certain distributive or financial functions—since it could not survive otherwise—but it acquires thereby a disproportionately high profit which is not invested in production and is sometimes even used for speculations against the central economic policy.

The big estates rented to small tenants perform no socially useful functions, except for ensuring the employment of more manpower—though at very low productivity—than those run by the land-owners themselves.

Those cultivated by the land-owner himself produce in an extensive manner for both export and the internal market. This production has a considerable importance for internal supply, the foreign trade balance and the balance of payments. In exchange for these functions the big estates claim an unjustifiably large part of good-quality land and of the incomes. By their existence they prevent the peasant purchasing power from growing, hindering thereby the development of the domestic industry. From the viewpoint of the national economy their existence and operation have become irrational but great efforts and much time are needed until other sectors are able to take over their functions. If the land reform is not prepared properly, the production, commodity production in particular, may fall back for years.

Agriculture producing on a small scale may achieve a macro-economic efficiency if properly supported by the government. Under these conditions the saving of manpower, i.e. intensive mechanization, is not yet necessary. The economy becomes more intensive if the yields can be raised by labour-intensive (but rational) methods of cultivation. This is possible almost everywhere, if combined with adequate soil improvement and fertilizing.

The norms of rational farming have not yet penetrated the traditional economy, as has been pointed out earlier. Therefore the government must make every effort to establish the preconditions of rational economy i.e. commodity and money conditions, in agreement with the tribal population. Only in this manner can the traditional economy carry out national-economic tasks efficiently, in the active sense of the word.

### Material Means Necessary for the Development of the Sectors

The quantity and the sources of material means necessary for the development of the various sectors constitute an essential factor in assessing them. In a country poor in capital the utilization of the material means must be given serious consideration. The scarcity of the funds is felt more intensely by the state than by the economy in general since the government is called upon to develop also the infrastructure from the low budget revenues and has to provide for security. For

the development of the state-owned sector several tasks must be co-ordinated, such as:

a) a state-owned sector must be established under any circumstances because its existence and operation constitute one of the preconditions of an economic control by the government,

b) it is not expedient to allocate too much to such functions of the state owned sector as can be fulfilled also by other (loyal) sectors of the economy through self-financing or with little state support,

c) the state must vigorously increase its incomes coming from sources other than taxes.

It logically follows that investments into the state-owned sector must be decided upon according to the amount and the date of expected returns. It is, naturally, impossible for the state to make investments everywhere where they seem to yield profit. Investments are limited by the scarcity of the available material funds. The possibility of future gain should be considered exclusively as one of the motives influencing the rational economic actions.

Also in the case of investments into other sectors one must be aware of what happens to the profit to be attained by the investor in question. If, for instance, a great part of what remains from profit after the payment of the profit tax is expatriated, then this kind of economic activity, though satisfying certain needs of the present, will impede future economic growth. Evidently, one of the fundamental preconditions of economic growth is that, in addition to meeting present needs, its surpluses (profits) should be immediately and efficiently invested into the domestic economy. (Let us recall, in parentheses, that Keynes's growth model is based on the equilibrium between the savings and the investments. This equilibrium is catastrophically upset from the side of the savings in every economy from which substantial profits are expatriated.)

By these considerations we want to show that thrift in utilizing state-owned funds is a very important but not the only principle to be weighed in the course of rational economic decisions and actions. Another essential thing is that certain needs should be met, that is, certain production tasks performed, by other sectors provided

- they are friendly or loyal to the political power,
- their direct interests in connection with the fulfilment of a given task run more or less parallel to the interests of the national economy.

A careful weighing and analysis of these requirements make it evident that investments made by domestic private capital may, in many cases, replace the state investments. It is therefore expedient to achieve a certain division of tasks between the state and the domestic private capital co-operating with the government. But in doing so it must be remembered that the state has to increase its revenue rapidly in order to lay the foundations of economic growth. The state obviously derives a considerable income from the activities of the domestic capital paying taxes, including the profit tax. This being insufficient, part of the investments promising high profits must be made by the state. Yet the state enter-

prises, when in competition with the domestic private capital, must not be granted a position enabling them to work at a lower efficiency than do the capitalist enterprises acting in the given sector. This would permit the state enterprises to take an easy pace and deprive thereby the state of substantial incomes.

Small-scale industry and handicrafts are, by definition, capital-saving and labour-intensive sectors. Hence, if capital is scarce, it is expedient to give them production tasks in conformity with their capacities and character. Moreover, it seems rational to entrust them with functions in the frames of which they can temporarily replace such big industries for the development of which considerable investments would be needed. By means of purchase taxes and export duties the state derives incomes also from the activities of small-scale industry and handicrafts.

The direct investments of foreign capital, naturally, do not require state-owned funds. Thus they represent an additional resource of investments, but in exchange, — the state will be compelled to grant tax benefits to the foreign-invested capital and fail to obtain a proportionate income from its production activities, — the foreign enterprise expatriates a substantial part of the profit, whence country poor in capital loses part of the internal accumulation.

In this manner the direct investments of foreign capital result only in apparent and short-term savings.

The situation is different when the state is able to obtain foreign credits under favourable conditions, by which we mean low-interest rates and a long period of amortization. In such cases the state utilizes the credit in industries yielding profits and raises its revenues. The amount of profits and the rate at which they are obtained will by far exceed the amount and rate of the obligations of repayment deriving from long-term debts.

In agriculture there is no need of a major state-owned sector since the state's primary task is not directly to increase commodity production but to improve the production conditions of the other sectors. In agriculture, the main role of the state-owned sector is to produce selected seeds, breeding animals not sensitive to the climate, implement major projects of rehabilitation or irrigation, introduce new processes for production and so on. The methods that have proved suitable in experimentation should be introduced also in other sectors. This explains why the investments into state farms cannot be replaced by the activities of other sectors.

The rented large estates, as is known, are no investors. The large estates run by the owners invest directly but often require state credits and subsidies for export. Of course, they also pay taxes.

Small-scale farming (including production of export) can, if supported by the state, increase its production. If production is to be increased, it is necessary to extend the irrigated areas, to use more fertilizers and breeding animals which should all be granted by the state. Mechanization, at least in the sense of mass savings in labour, is not yet needed.

It is unavoidable for the state to tap also the agricultural incomes. It is important to keep an eye on the ratio of the incomes extracted from agriculture to the amounts reintroduced. If this ratio assumes an unfavourable trend, agriculture will not

be able to develop, and this leads to the dangers and consequences repeatedly described above.

In this respect the situation is even more difficult in traditional agriculture which is not suitable for marketing a suitable part of its products yet requires considerable state funds for its development.

In economic decision making, the properties and characteristics of the various economic sectors should always be taken into account. Economic growth is an aggregate phenomenon and its success depends on the results of the activities of the different sectors. The central decisions should extend not only to the definition of the growth rate and of the tasks to be attained but also to the proportionate growth of the various sectors. In a developing economy, the presence of many sectors must be considered for several generations to come. It is of paramount importance for the state's economic leadership to draw all consequences therefrom. The decisive consequence consists in the necessity of controlling, directing and influencing the activities of all sectors. It would be a mistake if the government were only concerned with the state-owned and co-operative sectors and with small-scale production. The state is more than merely the owner of a sector in the economy and the chief protector of the co-operatives. The state is the supreme organizer of all economic, social and cultural activities in a country. It has the possibility and also the ability to mobilize all the forces of the country in the interest of economic activity. In a country poor in capital it would not be reasonable to exclude an essential part of the national resources from development. The success of economic growth largely depends on how far the state is capable of directing and influencing the many existing sectors.

Evidently, beside the influence of the state on the sectors, the activity of these also has an impact on the government and the ways in which it enacts economic control. In the subsequent chapter we shall examine these actions and reactions. But before going deeper into this, I should like to draw attention to the fact that the sectors have a substantial influence on one another's activities.

### Interaction of the Sectors

It is known that the nature and the operational laws of the various economic sectors are very different. One sector in the developing economies, the traditional one, has not yet adopted all requirements of rational economy, in other words, it is not concerned with producing more than is necessary for subsistence, and does not strive to achieve profits. All the other sectors, including small-scale production, essentially act according to the norms of rational economy, i.e. endeavour to make profit.

The differences in the nature and the operational characteristics of the sectors derive from the different production relations, on the one hand, and, on the other, from the different levels of the forces of production. These considerable differences are the results of historic development.

In the actual process of economic growth there are

- sectors competing with one another and trying to oust one another,
- sectors complementing one another,
- autonomous sectors which are concerned with the work of the other sectors only through the medium of the whole process of economic circulation and growth.

Competitive sectors trying to oust one another are, for instance, the state-owned sector of the large-scale industry and the domestic capitalist sector of the same. The competitive attitude lies with the nature of these sectors and not with the government's economic policy which may duly consider both sectors important for a long time to come. The economic policy may even make use of the difference between these sectors by allowing a certain competition to develop, which may result in a more efficient accomplishment of certain targets (for instance, the supply of goods for consumption or for investment). The competition must, naturally, be limited because

- the scarcity of goods is more characteristic of a developing economy than their abundance, and this is likely to remain so over a rather long period,
- viewed macro-economically, any competition is accompanied by a certain waste of resources which a developing economy cannot afford.

Complementary sectors are, for instance, agriculture producing for the home market and agriculture producing for export. It is well known that in most developing countries these two sectors stand markedly apart.

An autonomous sector is, for instance, traditional agriculture, functioning separately from the other parts of the economy, neither inducing nor absorbing any impulses.

In the course of economic growth the competitive sectors are extremely sensitive to one another's functions. The leaders of the state-owned sector, for instance, are deeply concerned with the production, investment and price policy of the private capital, and this, in turn, is quick in its reactions, when the state sector gains ground or improves its marketing policy. There is no sharp competition between the big and the small textile industry, since the first is rather capital-intensive and the second invariably labour-intensive, and thus they produce rather different kinds of commodities and satisfy different demands. In this field there will be no essential change for a long time because big industry continues to strive for higher productivity and small industry is likely to be supplied with labour in abundance. Nevertheless, the growing production of the big industry may oust the small industry in respect of certain goods and may even jeopardize the existence of certain conservative-minded artisans. And vice versa, the small industry may dump such an amount of goods on the market as to endanger in certain respects the position of the big industry. What usually happens in practice is that, owing to its more elastic and mobile nature, the small industry adapts itself to the new situation by producing more fashionable commodities and obtaining thus higher price incomes. The adaptation of big industry to the changes in the demand is generally a slower process, yet by the amount of its goods it may

induce the artisans to re-model their production. As a rule, this type of competition is healthy and is particularly useful for the consumers.

Beside competing, the sectors are also linked to one another in a system of interdependent economic processes.<sup>1</sup> Almost every new branch of production presupposes other production branches because it not only satisfies needs but also creates new demand. The impact of the economic sectors upon one another's production and activity might be called an intersectoral effect. The increase of the production of a sector elicits a whole set of requirements with respect to other sectors. The intersectoral effects may be direct or indirect. The effect is called direct when the expansion of a sector requires new production equipment and/or more raw material to be produced in other sectors. The development of the textile industry, for instance, will obviously increase the needs in textile machines and in cotton or other raw material. If the production targets of a new branch are set, the rate of increase of demand created by it can be determined with a high degree of accuracy. Indirect intersectoral effects are more complicated. If, on account of the increase and improvement of the supply of goods the consumers spend more money on textile goods, this unleashes a host of indirect effects: for instance, more stores and shop-assistants will be needed, perhaps also shoes or hats will be in greater demand, the tailors may obtain more work and so on.

Or, if agriculture is meant to yield more, large amounts of fertilizers will be needed. At the outset, this will probably be obtained by importing them, but later on endeavours are likely to be made to develop the chemical industry. It is very difficult, however, to tell exactly how agricultural production will grow when imports and/or home output of fertilizers is increased by a given amount. This depends on many another component, such as the weather, irrigational facilities, the skill and the material interest of the producer (in the first line, the relative prices of fertilizers and agricultural products), the efficiency of distribution, etc. Theoretically it is also possible that the producers are reluctant to use fertilizers. Nevertheless, the growth of agricultural production is somehow related to the development of the chemical industry, and this also results in a number of indirect sectoral effects: both the larger input of fertilizers and the larger output

<sup>1</sup> When discussing the interrelationship between the various sectors it is important to point out that the economy is subdivided not only according to the ownership relations but also according to the social division of labour. In the latter respect we speak of economic (rather than social) sectors and of relations between such economic sectors.

In practice, within one branch of production (or "economic sector") several "social sectors" may compete with one another yet have some common interests in relation to all other economic sectors. It is, for instance, the common interest of all social sectors of agriculture to achieve favourable prices or to prevent the gap between the agricultural and industrial prices from increasing to the benefit of the latter, although it is obvious that the more contemporary sectors benefit more from a price rise than the less developed ones and the possible disadvantages of the former affect the latter more heavily.

The notion of intersectoral relationships includes, in our presentation, those existing between the "social" sectors as well as between the "economic" sectors.

of farm products require more means of transport, better roads, more dockers, larger store houses, a better organization of trade and so on.

The intersectoral effects referred to above develop in a system of interdependent economic processes, irrespective of the nature of the individual sectors and of the laws governing their operation. The need of agriculture for fertilizers can be satisfied by the capitalist sector and by the state sector alike. In this sense even sectors representing contradictory ownership relations may promote and encourage one another's activities.

It is of paramount importance for the economic conception to predict the expected trends in the intersectoral effects, and that for two reasons:

a) otherwise a whole complex of troubles ensues during economic growth; for instance, great efforts and sacrifices are made to raise agricultural production yet the increased output cannot be transported, stored, cooled, processed, etc.;

b) the state's economic leadership is likely to be strengthened if, as the creator of the national economic plan, it uses its first-hand information also for preparing and establishing correlations between the endeavours of the various sectors.

The economic policy of the government is another source of interactions between the sectors. In the course of its decisions regarding economic policy, the government must necessarily give preference to one sector against the others in the implementation of certain tasks. These preferences are, naturally, meant to promote attainment of the given production targets with greater efficiency. They involve certain benefits, such as investment credits, lower rates of interest, tax reduction etc. These privileges will, obviously, elicit a nervous reaction from the competing sectors. It should be stressed that the assumptions associated with a given economic measure usually play a greater part in eliciting nervousity than its real economic effect. The government must be invariably aware of this since the leaders or owners of the economic sectors look upon an actual measure as an introduction of a set of further measures to be taken in the future, and these anticipations have an impact on the present conditions. And the nervousness of certain sectors is apt to become contagious: it is likely that a measure resented by the domestic private capital involves a speculation started by the middle-sized foreign capital; some businessmen and speculators may make use of the disquiet and, for instance, the price of gold suddenly begins to rise; a set of events is touched off, the final consequences of which are substantially more significant than the original causes. It follows that when granting priority to one of the sectors, the government must carefully study the problems of the competing sectors. If the functioning of a competing sector is considered important, it must be given some minor compensation in some other field. If this is impossible, some political steps should be taken to convince the leaders or owners of the competing sectors that the government wants them to continue their economically useful activities. Such steps are necessary also for purely political reasons since the behaviour of the leaders or owners of the sectors in question has an impact also on the internal circle of power: on the political party, the state apparatus and the army.



The situation is more complicated when, instead of granting priority to some sector, certain prohibitions and limitations must be established with regard to some sector. Steps of this type are, unfortunately, unavoidable in a developing economy. Owing to the general scarcity of resources, it may occur that it is not possible to stimulate one of the sectors and it even becomes necessary to counteract speculation by other than purely economic means. In such cases the leaders of the sectors who are prevented from doing at their will feel that they are deprived of some "legal" profit or other advantage and try therefore to get round the prohibition or limitation. The propagating effects depend, in the first place, on the mass influence and the economic force of the given sector.

If, for instance, on account of import difficulties, the use of some raw material is prohibited in the small-scale industry, this measure will have a considerable mass effect and will result in inconvenient political reactions. Economically, however, no major trouble will ensue since small-scale industry will sooner or later recur to some substitute material but will not reduce its production. (True enough, public opinion is likely to condemn such a measure of the government in spite of the artisans getting on very well without the raw material in question; it will praise the inventiveness of the artisans who have outwitted the government.)

On the other hand, if a ceiling is set on the price of gold or of foreign currencies, this is generally approved of by the large masses, although their sympathy does not solve the problem. If, by relying on its liquidity, the foreign middle-size capital starts major speculations, it becomes impossible to maintain the rate of exchange.

Speaking more generally, it is obvious that the sectors other than the state-owned sector and the co-operatives disapprove of all limiting or prohibiting measures since they are afraid that these may lead to an overall restriction of their activities.

That is why measures of this nature should be taken in cases of emergency only. And in such cases, the sectors directly or indirectly affected should be reassured in an appropriate way.

Here again we wish to emphasize that all kinds of voluntary measures should be avoided.

## Guiding and Influencing the Activities of the Various Sectors

In this chapter, too, I rely on the assumption, or rather on the conviction that in the developing countries the central government is able to influence the activity of the various sectors in compliance with the general aims and requirements of economic growth. The activity of the sectors can be influenced by various means of economic, administrative, political, social and scientific-organizational character. But these means cannot be applied successfully unless the content and the environment of rational economic action are correctly determined. Otherwise, these means are likely to have rather an untoward influence and miss their aims. In other words: the activity of the sectors, i.e. the economic processes arising in their wake, can only be influenced as parts of a correctly established economic-political conception. It follows that economic decisions, i.e. economic policy have a vital significance. Serious mistakes may, naturally, be committed also in the presence of a correct economic-political conception, yet an erroneous conception cannot be improved even by the best system of guidance.

We have often mentioned that the central economic guidance consists of several subsequent phases, both in the logical and the chronological senses. The analysis of this activity or rather process requires this division, yet it should be kept in mind that the chain of actions, reactions and counteractions constitutes a unity in a certain sense. The economic decisions should cover not only the objective of the action but also the methods and means of its implementation, and the anticipation of the situations and difficulties that may arise in the course of implementation. Relying on these anticipations and expectations the action programme should be worked out by utilizing all means and methods in the hands of the central power. In other words the decision must reckon with all problems of implementation.

### Preconditions for the Efficient Guidance of the Sectors

The activities of the sectors, i.e. through them the economic processes they elicit, cannot be satisfactorily guided with the help of the means in the hands of the state unless:

a) the targets of rational economic action interpreted in the macro-economic sense are correctly determined and the sequences of actions to be undertaken during implementation are arranged in a correct chronological order,

b) the political power relations and their possible shifts to be expected during implementation are properly combined,

c) the anticipated reactions of the various sectors are predicted with due regard to all political and economic factors.

Even if the calculations and combinations are properly made, it is possible that such international events may take place as could not be anticipated, yet substantially modify the behaviour of some sector.

Economic decision making and the techniques of previous analyses and calculations are treated at large in the literature. Economic decisions comprising in a complex manner the viewpoints of implementation can be approached from two angles:

a) from the angle of the objective economic relationships by trying to construct the ideal or optimum economic action,

b) from the angle of the bodies making the decisions, by analysing the motives guiding these organs in the course of decision making.

The final decision obviously embodies a compromise between these two angles.

The objective economic relationships must be studied when preparing the decision, and the findings may also affect the timing of the decision.

The preparation of a decision may be started under various circumstances:

a) a decision of principle has been made by the government or the competent political body to solve some economic problem,

b) some organ or organs directly responsible for the development sphere of economic life (including parts of the state apparatus as well as the leaders or owners of the sectors) initiate the solution of a question or questions exceeding their competence or power,

c) the pressure of the masses, in most cases originated by the deterioration of the economic situation or by tensions between layers of the population or geographic regions, urges to tackle a certain problem.

### The Mode of Preparing a Decision

A decision is usually prepared by collective groups in which workers of the state apparatus, scientists, economic and technological experts may take part. The time necessary for the preparation is the function of various factors of which let us mention

- the urgency of the decision,
- the character of the decision,
- the amount of time required for the preparation of the decision,
- the number of experts available and the time they can devote to the task.

Theoretically it is of paramount importance to have sufficient time for preparing the decision, that is, time permitting a thorough practical and scientific analysis of the problem.

In practice, however, if the initiative comes from the central organs or is prompted by the pressure of the masses, the available time is likely to be less than what

would be required to prepare decisions according to scientific principles. In such cases, it must be realized that the situation is going to deteriorate in the time interval between the recognition of the shortcomings and the accomplishment of the scientific preparation. When comparatively simple measures are needed, it is likely that the prolongation of the time of preparation may result in a lesser qualitative improvement than what damage may be caused by the postponement of the decision. In such cases proposals for urgent provisional measures should be elaborated, pending on a later, more profound analysis of the question.

Economic decisions may vary widely in character, yet two fundamental types can be distinguished:

a) decisions relating to the interdependent system of rational economic actions (for instance, the adoption of a new conception of economic policy, or the modification of an existing one),

b) decisions made within the framework of the conception adopted.

The preparation of decisions within the adopted conception is obviously a simpler process involving fewer political problems. The highest organs of political power need but rarely concern themselves with these decisions. Within every development conception it is indispensable to modify the centres of interests from time to time. World-technological progress may require the modification of the industrial structure originally conceived. This involves the use of additional funds or the regrouping of the existing ones. But a regrouping does not mean a substantial modification of the equilibrium of either the socio-political or the economic power factors.

### Decisions Concerning the Introduction of a New Conception

A new conception of economic policy (as incorporated in a middle-range national-economic plan) or decisions essentially altering the existing one constitute serious problems for preparation, discussion and the adoption of the suggestions. These decisions are expected to open new phases in economic growth. It is possible that a new middle-range national economic plan involves no radically new conceptions. But even in this case it rearranges the growth targets, the allocation of material and intellectual resources, determines the systems of economic incentives, induces changes in the relationships between sectors and geographical areas as far as their importance is concerned, creates new sources of income, new credit policies.

It is obvious that the increased tasks cannot be performed with the old means. The arising tensions become even sharper when in some respect or other the old economic policy must be subject to a more radical revision; for instance when, on account of difficulties in the food supply, the investments must be re-allocated for the benefit of agriculture, or a land reform with compensation is to be introduced or certain measures become necessary which affect middle-size capital.

The complicated character of the decisions opening up new phases in growth can be traced back to several factors, lying partly in the sphere of political power, partly in economy itself. The old conception of economic policy to be replaced was formed in the presence of certain political and social power factors and adapted to their interests. A new economico-political conception must account for new political and social forces and interests which gradually intermingle with the old ones.

In addition, every conception of economic policy evolves a specific way of economic thinking in the society with respect to the growth targets, the priorities, the suitability of the various measures and to the role the various sectors may play in the process of economic growth. This way of thinking is endorsed by the partisans of the conception, is opposed by others and represents a point of crystallization of the debates and discussions going on in the society. The old conception encouraged the development of certain value scales and resulted in the formation of some more or less uniform practice followed by the central apparatus and the local authorities. This practice turned into routine or automatism endorsed by some and deluded by others. The change of economic conception affects adversely not only the first but also the second category since the circumvention of the old rules had long ago turned into an art while that of the new ones still has to be learned.

It follows from the nature of things that the old conception was supported by the leading layer and opposed, in the first place, by forces outside the inner circles of power. Hence a considerable part of the leading layer will take a stand against the new conception, feeling it would jeopardize their prestige so heavily fought for. This happens even when the new conception has been developed by certain groups of the leading circle.

There are even graver problems in the economic sphere. It is quite obvious that the old economic conception favoured the interests of some sectors and of some types of enterprises within these; for instance, the domestic private capitalists within the textile industry who, then, were able to increase their production and profit. If the new conception focuses on the chemical industry, the former privileges enjoyed by the textile industry will dwindle: its credits will be more expensive, its taxation less benevolent, and all this may lead to a sharp fall of its profits.

But the textile industry does not stand there without associates; it is supported by the producers of cotton, wool, hemp, etc. (if there are any), by the firms importing materials, semifinished goods or equipment for the textile industry, and possibly by some banking and foreign trade organizations. As to its problems of existence, the textile industry may obtain support also from the trade union of its workers. In addition to all these, the transfer of the centre of industrial development necessarily raises also some regional problems since the textile industry ensures, for the regions where it is located, distinct advantages in the form of employment, local taxes, faster development of the infrastructure, possible jobs in the board of directors, etc.

When reshaping the production pattern a new industry or several new industries are to be developed, these have not yet a wide scope of support and supporters deriving from political, economic and regional interests. Hence, in making decisions opening a new phase of economic development, the partisans of the new conception will be in minority, in spite of the fact that they are in majority among the leading political bodies.

Decisions introducing a new phase of growth must represent the highest standard available in the given country. The regrouping of the political, economic and regional factors yields a new constellation. The analysis of the anticipated situation, in the courses of which hypotheses are built one upon the other, requires the concentrated intellectual efforts of the best scientific workers and practical experts. The complications are enhanced by the fact that the leading body representing political power is by far not unanimous as regards new conception; on the contrary, very sharp differences are likely to occur. Under the conditions of the old conception, a certain balance of forces had developed in spite of the differences in opinions. This equilibrium is now to be upset by the new conception. The actions of the leading political bodies in discussing such decisions will be examined in greater detail in the second part of this chapter. Here I only wish to stress an important point. Any new conception that starts a new phase in economic growth involves a reallocation of resources and must necessarily lead to serious debates and struggles; but all this reflects only the political necessity of giving an institutional form to the changes that have gradually developed in the power relations.

Any decision opening a new phase of economic development requires a lengthy preparation owing to the extreme intricacy of the problems concerned, in order to ensure a gradual transformation of public thinking. A long period of preparation makes it possible for those concerned to adapt themselves to the new situation.

Also it helps the followers of the new conception to acquire adepts in public thinking and in economic life, especially in the regions where the new industries will be located.

The time of preparation is necessarily long also because a large number of experts must co-operate. If, however, experts are not available in sufficient numbers at home, also foreign experts should be engaged who are acquainted with the typical problems of the developing country in question and are willing to share their efforts in accelerating economic growth.

The decisions starting a new phase of economic development are the best proofs of how closely the problems of decision making and implementation are associated with one another. Economic decisions failing to reckon with the real situation and its expectable shifts during implementation cannot be considered as scientifically founded.

## The Decisive Role of the Time Factor

The time factor plays a decisive part in every phase of rational economic action. We have earlier pointed out that the actual situation, on the one hand, and the impatience of the political bodies, on the other, do not permit sufficient time for preparation. The problem of time is enhanced when information and data for preparation are not available. When various cultures and branches of agriculture have to be correctly distributed between several geographic regions, the task is relatively easy if maps showing the soil and climatic conditions are available. In the absence of such information, the preparation of decisions takes more time and, in spite of this, can yield only provisional proposals, based on incomplete information and experience. Such decisions have a wider margin of error, yet may be comparatively correct if the decision makers rely on experience rather than on wishful thinking. Experience acquired during our life-time constitutes an important element of our present economic decisions. What must, however, be avoided is to replace our experience and our knowledge of reality by various doctrines under the pretext of a "scientific" approach. This creates a voluntaristic attitude which may lead to a whole chain of incorrect decisions.

The choice of the dates of decision making is also of great importance. It is well known that the dates of decision-making cannot be chosen at random. A project cannot be adopted unless the political and economic circumstances are ready for its adoption. The political bodies assess the proposals submitted to them from the standpoint of their expected influence on the balance of political power. Proposals likely to diminish or even risk the popularity and authority of the government are only adopted if no other alternatives are available. There are times when the government feels that its balance of popularity is "overdrawn" and it must not undertake any more risks. However, the postponement of a necessary decision in the hope that the situation will automatically improve in the future is usually mistaken.

Some decision proposals may be prematured also with respect to the power relations between the economic sectors. Even though these difficulties are considered, the serious dangers deriving from the postponement or cancellation of a decision must not be forgotten.

But the best date for the decision cannot be determined solely from the viewpoint of the decision-making organs. These must, naturally, assess the balance of political power, the relationships between the economic sectors, public thinking, and so on. The preparatory organs, on the other hand, must weigh their time requirements. It must, however, be realized that what we want to interfere in is an economic process characterized by various trends. If, for instance, the given economic phenomenon displays a constantly deteriorating tendency, any delay will result in greater troubles with a multiplier effect, i.e. even the restoration of the original situation will require tremendous material and intellectual efforts. In other instances economic action can be performed only before a certain date, for later the circumstances will change adversely. In such cases the delay of

the decision causes serious economic and possibly political damage. The political damage materializes in the fact that an irresolute government, unable to take concrete decisions and avoiding difficult problems, always loses something of its reputation.

Time is an important factor also in the process of implementation. The problems in this connection must, naturally, be taken into account as early as in the decision phase. Let us first of all stress that the plan targets must be attained at prescribed dates. This requirement is of extreme importance since the targets are not independent of one another. Any accomplished target is likely to become a means for achieving the next one. Thus economic targets are superimposed on their predecessors. When forecasting a set of interdependent economic actions the various targets must be co-ordinated not only as to the quantities of resources required by them but also as to the dates of their realization. A delay in the attainment of a given target may make it impossible or at least extremely difficult to attain some other targets.

Such delays not only hamper the attainment of the associated targets but may also endanger the economic equilibrium. Delays of decision must result in delays of implementation; the putting into operation of new production capacities will be postponed, and this must lead to shortages, additional imports and thus to the deterioration of the balance of payments.

The economic leadership often urges the acceleration of investment activity on account of the disequilibrium shown by the preliminary plan computations which cannot be offset by increasing imports because there is anyway a deficit in the balance of payments.

But the growth rate and the investments are not meant to be slowed down, therefore the economic leadership endeavours to set dates earlier than scheduled for the putting into operation of import-saving or export-increasing investments, for instance to persuade the enterprises implementing the investment projects and chiefly the building industry, to bring forward their deadlines. It is, however, not expedient to include unrealistic assumptions in the plan because, when the process is in full course, it is difficult to liquidate the troubles that have extended over vast areas.

Every complex task, including the implementation of the investments, is linked with a large number of partial tasks, and the chronologic co-ordination of these to one another and to the complex task has made it necessary to develop new methods. What we have in mind in the first place is the PERT method which has gained vast ground in the past decade, a method ensuring the chronologic, logical and technological co-ordination of the processes. This method also enables us to predict the necessary means required by the time shifts, such as the bringing forward of deadlines, for instance. Naturally, the purpose of applying these methods is not only to co-ordinate the partial tasks but also to reduce the stock of unfinished investments.

The various alternatives of scheduling investments involve temporary "freezings" of different duration and nature whose minimum possible level is deter-



mined by the technically shortest duration of implementation. In practice the quantity of means frozen in is always larger since the possibilities to co-ordinate the implementation of various associated projects are restricted and it is indispensable that they should wait for one another to be put into operation.

Such a chronologic co-ordination is a typical kind of decision that can safeguard the economic leaders from errors and illusions.

While talking of the time factor it is important to point out that the economic processes have a periodic character. This holds not only for production and consumption but also for the growth process itself. Also the implementation of investments is in part responsible for this periodicity. The narrower the field investigated, the greater the periodicity discovered. The activity of a plant or of an industry is always more "periodical" than the development of the national income. A certain periodicity prevails also in centrally directed economies; but those setting up the decision system adjust the dates and the spheres of competence to the internal laws of the economic processes and, by doing so, the wave-like impacts of the central decisions can be substantially reduced. Without this, a centrally directed economy would react slower to changes than an economy where decisions are decentralized, because the processes induced by the various economic decisions appear by jerks.

In certain central decisions periodicity cannot be avoided. Such decisions are those opening a new phase, those mostly combined with social and economic reforms.

### Anticipated Shifts in Political Power Relations during Implementation

In decision making, account should be taken of the changes and shifts in the political and economic power relations taking place in the period and process of implementation. These changes and shifts are affected also by the situations and circumstances evolving during the implementation process. In the course of implementing a coherent conception of economic policy this influence may be of a dominant nature, but in the case of decisions relating to individual problems the decisive role is played by changes adduced by the effect of other factors.

The decision—as has been pointed out earlier—should be interpreted as a provisional compromise between the opposite political and economic interests and power factors. Clearly, a decision will not cancel the possibility and necessity of further struggle between these factors. It follows that after the decision is taken, i.e. in the period and process of implementation, the political and economic struggles evolved during the preparation and the making of the decision will be continued. And by the nature of things, the political and economic struggles relating to the problems of implementation tend to be even sharper (because dealing with more concrete questions), although less spectacular, than those that

were related to decision making. To understand and evaluate this question, it is necessary to consider the following circumstances:

- a) the power relations of the decision-making political bodies may differ from those existing in the country since the highest bodies comprise only the representatives of the leading layers;
- b) the decision-making bodies—despite their internal contradictions—are politically more homogeneous and act more rationally,
- c) the results and consequences of the economic decision materialize only during the implementation process.

As shown by history, it may also happen in practice that the economic decision is turned inside out during implementation, benefiting those whom it wanted to restrict and inversely. This distortion of the original conception, however, is not only associated with the standards and the capacities of the executive apparatus but also with the conflicts of political and economic interests which flare up with renewed force in the period and process of implementation. This is understandable since the decision, on account of its character of compromise, contains only general principles, whereas in the process of implementation the actual interests come into a face-to-face conflict in a larger sphere more difficult to survey.

But even in this respect the implementation process is linked with the decision process, i.e. with the activities of the decision-making political bodies. The political groups that participated in the fights concerning the decision will continue their struggle during implementation with a view to mitigating or modifying the disadvantageous elements of the decision (disadvantageous for the group in question) or—under conditions extremely favourable to them—to revising it during execution. This aim can only be achieved in the following cases:

- a) the general political-power relations change during implementation to the benefit of the group in question,
- b) the position or the organization of the group in question is better in the outer circles of power than in the inner circle, i.e. in the decision-making body,
- c) the opinion of the given group which opposed the measure during the preliminary discussions seems to be more or less justified by the mass reaction to the measure in the course of its implementation, and this may induce the leaders and members of the majority of the decision-making body to think over their views.

In this respect I wish to point out again the characteristic mistakes of various political bodies of relying all too firmly on the power relations of the inner circle when assessing their position. This is an extremely important question, even decisive at times of major social tensions, and the neglect of the interests and feelings of the outer circle may sooner or later lead to the isolation of the leading political bodies and to catastrophic consequences.

If the political group that has opposed the measure cannot expect the essential modification or revision of the decision, it will strive to delay implementation. They hope for the best and think that the power relations will later shift to their benefit. Delay may assume different forms of which the most characteristic is the

endeavour of postponing as far as possible the date for the introduction of the disadvantageous measures.

The activity of the state apparatus is of particular significance in implementation as will be shown later. Here we only want to point out that the conflicting views and interests in the political power are reflected in the state apparatus since every political group has some of its own people in the government offices. On the other hand, the operation and movements of the state apparatus are governed by certain inherent laws affecting the behaviour of the apparatus.

The activities of the regional organs are also of importance for the implementation. But regional administration, i.e. the local organs of the state power, tend to reflect the movements and endeavours of factors in the outer circle of power, such as tribal, national, religious, etc. factors.

Later the regional problems connected with the implementation of economic decisions will be discussed in greater detail.

### The Impact of Decision upon the Behaviour of the Sectors

The content and nature of the economic decisions obviously determine the behaviour of the economic sectors, yet the trends in this behaviour are influenced by several factors, such as

- the relation of the sectors to the political power,
- the relations of certain economic branches to other economic branches,
- the interrelations between the sectors,
- the opinion of the sectors on the expected consequences of a decision.

The sectors formed on the basis of the ownership relations investigate not only the content of the economic decisions related to their own interests and endeavours but also the general attitude of the government towards the given sector. This method of appraisal is fully justified since every economic decision is part of a long set of decisions and actions preceding it in time, one that has outlined the relation of the given sector to the political power.

On the other hand, the decision in question is either co-ordinated with the preceding set of decisions and actions or else submits these to a revision. As a function of this the sectors shape their expectations in connection with the policy towards them. It may be said in general that the sectors are more inclined to tolerate a violation of their own short-term interests when they are convinced that the government has a friendly attitude towards them and the political constellation is firm. And vice versa: certain sectors are more ready to renounce (at least for a transitional period) some of their privileges if they feel that in the long range the government is firmly acting against them (e.g. wishes to liquidate them) or if they think that the political situation is not stable.

In the economy, within each productive branch there are interests common to every social sector having a part in that branch. Every agricultural sector, for instance, requires higher prices on food although they do not equally benefit therefrom. In this sense the various agricultural sectors put up a common front.

Their behaviour is affected by the general agricultural policy of the government, i.e. by the granting of credits, by the degree in which the economic leaders promote the expansion of irrigation, by the availability of the necessary means of production, by the price and tax system etc. As a general rule, here too, it may be said that the behaviour of agriculture is not likely to be substantially influenced by any single decision, whether favourable or not, but by the whole set of decisions, intentions and actions embodied in the collective term of agricultural policy.

Agricultural policy does not consist of slogans or intentions but of a series of concrete measures meant directly to help achieve aggregate targets by either promoting or hampering or jeopardizing directly the activities of certain individuals or groups. The standard of living of the population, the development of agriculture and the balance of the national economy depend on the success or failure of these activities.

The economic decisions involve shifts not only in the relative situation of the productive branches but also in the relative weight of each sector. The competing sectors trying to oust one another (e.g. the state industry and the domestic capitalist industry) sensibly react to decisions resulting in shifts in the relative weight of the sectors or introducing a new phase. The domestic capitalists usually become more cautious when the state sector is being developed at an enhanced rate, and try to achieve liquidity; they refrain from investing, withdraw part of their existing investments, fail to transfer home part of their incomes yielded abroad, reduce their stocks, etc. On the other hand, it is not to the liking of the state sector to see the capitalists being granted credits, tax privileges and encouragement since it feels that the government ought really to grant all support it can afford to the state-owned sector. This sector, like all others, wishes to progress in the line of least resistance, i.e. requires advantages and privileges.

The direct interests of the complementary sectors (for instance a small farm producing for export and another producing for the home market) are not conflicting. It is therefore conceivable that government measures aimed at assisting the export-oriented small farms (e.g., cheap long-term credits, the construction of certain irrigation installations, the building of roads, more favourable prices etc.)—provided they do not exceed reasonable dimensions—do not elicit any counteraction on behalf of the small plants producing for the domestic market. If, however, they exceed the maximum amount tolerable by the small plants producing for the home market, the attitude of the latter will change. The content and forms of this changed attitude vary according to the natural conditions of agriculture, to the elasticity of the economic units and to the mobility of the producers. Reactions may range from a sudden and not necessarily reasonable expansion of production for export at the cost of the domestic market to a mass exodus from agriculture.

In the developing countries the state-owned industry may satisfy other needs than do the artisans working with a great labour input and at a low productivity. In this sense, these sectors also complement each other to a certain extent. Nevertheless, if, for instance, budget means help the big textile industry rapidly to in-

crease its capacity, this measure will necessarily oust the small industry from part of its former market, and the other way round: a substantial subsidy given to artisans may result in difficulties in the marketing of the products of the big industry.

Thus, when economic policy is not well balanced, it may not only cause damage to the national economy but also turn against one another such sectors between which there used to be no major conflicting interests.

The attitude of the sectors largely depends on their opinion on the expected consequences of some economic decision or a set of interdependent decisions. These consequences may involve various processes and events, the nature and intensity of which depend, first of all, on to what extent the government will succeed in attaining the targets it has in mind. Thinking in larger categories, it is evident that a government unable to have its economic conceptions implemented cannot be long-lived in a society going through a period of dynamic changes and transformations. And the government must have a well-founded economic conception also regarding the activities of the private-owned sectors. The initiatives, the credit and investment policy of the government will, sooner or later, create new needs and demands in the society and economy. If the sectors consider the economic development plan as bold but feasible, they will engage in a saving and investment activity to satisfy the anticipated demands. This attitude corresponds to the interests of the state since in this case some of the savings and investments will be done by the private-owned sectors, and the scarce budget means can be canalized into the most important investments. It follows that when the economic plans are sound and are accomplished successfully, the private sector also obtains markets, can expand production and obtain profits. If, however, the conception of economic development proves unrealistic, all sectors will suffer heavy losses, and, beside the damages to the national economy, it may be assumed that also part of the capitalists and small entrepreneurs go bankrupt.

A specific feature of the situation is that in a centrally directed economy both the expansion of the activities of the loyal private sector and their necessary curtailment depend on the achievements of the economic policy of the state. When the private sector has no confidence in the official economic policy and fails to engage in investments satisfying the future needs, the progress of economic growth slows down, because the private sector will postpone its investments until the presence of unsatisfied demand becomes manifest. Accordingly, a period of disequilibrium is inevitable. Economic growth will proceed in a series of "leaps" since, after the accomplishment of certain "primary" investments by the state, budget means must be diverted to "secondary" investments in order to satisfy the new demand created by the former and to liquidate of the ensuing shortages. Only after this can a new series of "primary" investments be made, and these again will require a whole set of interconnected institutions and create a wide range of new demand.

The continuity of economic growth requires the economic development conception to become the calculation basis for the activity of the other sectors. This

postulate once again reminds us that the national economic plan is not only meant to elicit the enthusiasm of the masses and animate their activities but also to serve as the rational economic foundation of the actions of the private sector's major or minor businessmen. If the plan is too bold, it will elicit caution and restrain from this layer, and the postponement of the private investments that would be necessary to satisfy future demands.

We have so far spoken of the preconditions of an efficient economic control by the government, of which we have analysed the correct decision making, i.e. the correctness of the economic conception, the consideration of the time factor and the correct assessment of the political and economic power relations in the course of implementation. The economic power relations and situations cannot be appraised properly unless we are able to predict the expected behaviour and attitudes of the various sectors.

### **Instruments Used by Central Economic Control to Influence the Sectors**

We shall now define the scope and amount of instruments available to the central economic control for influencing the activities of the various sectors. At the beginning of this chapter we have pointed out that the instruments may be of an

- economic,
- administrative-instructive,
- political-social,
- scientific-organizational character.

These instruments are used to create an economic environment and circumstances in which the various sectors and economic units will function according to their own laws but in such a way that the outcome of their combined actions coincide with the interests of the national economy.

The economic resources available for the central economic control are rather scarce in the developing countries, as we have pointed out several times. As a consequence of this, also non-economic measures must be resorted to.

The purpose of using the economic resources available to the government is to turn the functioning of the micro-economic units and the behaviour and work of those engaged in economic life into a definite direction. The applications of these economic resources is the task of the central economic leadership which withdraws certain resources from the normal economic circulation and refeeds them according to the principles of economic efficiency; in other words, it accomplishes a certain redistribution of the national income. The problems involved have been discussed at large in Chapter 7 dealing with finances. Here we wish to recall that, while "overtaxation" may destroy the mechanism of economic interests necessary for the normal development of the economic units affected, it is none the less imperative to withdraw from their incomes as much or approximately as much

as is indispensable for creating the right climate for economic growth, or can be utilized in other fields with a substantially higher efficiency.

Various targets must be achieved simultaneously with the help of the economic resources available to the central government. Most important of these are

- to create an economic and social environment stimulating growth,
- to create new branches of production,
- to promote the efficient utilization of the material resources available to the government,
- to encourage the quantitative and qualitative development of the existing economic activities,
- to contribute to the modernization of the traditional sectors.

The creation of the economic and social environment promoting growth means the formation and the constant development of the infrastructure. This must be accomplished wholly or mostly by using budget means. The "return" of these investments is always indirect. It materializes in the results attained by the branches of production (state-owned and other) but the investments must be financed mainly from the classical budget revenues.

Economic growth is inconceivable without the development of the infrastructure. Yet, owing to the extreme scarcity of resources, the amount of investments must not and cannot exceed a certain level, since otherwise the directly "productive" investments are neglected and this involves the danger of an economic disequilibrium.

The creation of new branches of production is one of the main targets of the central economic control. This is of particular importance in countries where capital is scarce and there are few, if any, individuals or enterprises looking for favourable investment possibilities.

The creation of new branches may assume different forms, such as direct investments from the state budget or credits granted by the state under favourable terms. These processes give an essential impetus to economic growth. New production branches create new demands on the market of investment and consumer goods. Even in the case of an investment made by the state, the opportunities of the other sectors tend to increase since the state is not in a position to accomplish all complementary investments. Privated domestic capital is not likely to create some new branch unless the vertical forms of economic organization have already been introduced into the economy. In such cases long-term and low-interest credits are to be granted.

It is extremely important for the government to recover rapidly the scarce material means. Thus the new industry should be allowed to enjoy high productivity and a reasonable extent of protection for a certain length of time. Proper price and production policy should ensure for the new industry a profit rate exceeding those usual in the other industries.

With a purposeful economic policy and proper measures the creation of new branches does not only expand the sphere of economic activity inducing new needs but also permits the increase of accumulation.

The trouble lies not only with the scarcity of economic means in the developing countries but also with the existing wealth not being distributed according to the requirements of economic growth, what is more, a considerable part thereof does not even participate in the economic circulation. Obviously, this hoarded wealth cannot be mobilized through administrative measures since, owing to its liquidity, it can avoid all control at any time. Yet part of the state funds should be used to establish economic conditions under which the rich are inclined to engage themselves in production. In this case, too, the state must make sacrifices in order to mobilize comparatively large sums and to direct them into production. It may happen that this capital becomes reluctant to enter into production even though high productivity rates (profits) are granted.

In this case high deposit rates and guarantees regarding the safety and anonymity of deposits should be given. This lures part of the capital into the bank and can then be fed into production under a lower rate of interest. The difference between the high deposit rate and the low lending rate must be covered by the state. The deposit rate should be established at about the level at which the country could, and is willing to, raise foreign credits. It may even exceed this level, with a view to the advantages of borrowing at home. Moreover, it is determined by the conditions under which the state is able to raise foreign credits. The capital keeping aloof of production will still be reluctant to go into the bank if, owing to intensive demand, private debtors are inclined to pay higher interest rates than the bank. In order to check this process the state should pursue an active credit policy affecting thereby the trends on the money market.

The economic leaders should stimulate the development of the existing branches of industry and agriculture either directly or indirectly. The trends on the internal market, the rapid growth of needs and solvent demand constitute an indirect stimulus and impulse for all existing industrial branches. In the first period of development the growth of solvent demand is likely to exceed the production capacities suitable to satisfy demand in certain domains of investment and consumption. But this transitional phenomenon must not be tolerated for a long time since a permanent shortage of goods creates a monopolistic position for the producers, resulting in the competition of the buyers rather than in a healthy competition of the producers.

But the growth of the internal market creates only one of the rational requirements of the expansion of production, without, however, developing the material and human resources necessary for increasing the capacities in an economy poor in capital. The creation of these conditions should be promoted by the economic leadership. There are several economic means at the disposal of the government, the most effective of which are the long-term and low-interest foreign credits. It is clear that, for the time being, self-financing can be relied upon only to a limited extent. It is necessary to obtain foreign currency on long-term credit for the import of capital goods. The economic leaders are to encourage and ensure the priority of industrial branches expanding their production. The price and tax policy should promote this expansion. These two methods are complimentary: too high prices may become an



obstacle to the expansion of the market and frustrate the efforts made for the increase of production. Cheap credits and the possible tax privileges permit the given industrial branch to attain an adequate profit at a lower price level. It is in general not expedient to subsidize existing industries for the sake of their expansion. It may also occur that the economic leaders wish to raise the export; this can be achieved by export bonuses and currency bonuses.

### Influencing the Activity of the Backward Sectors

The economic leadership should also promote the gradual modernization of the backward sectors. These may be influenced by a specific combination of administrative, economic and organizational measures. Yet no pressure can be successful unless its purposes approximately coincide with the interests of the development of the backward sector. It should, however, be kept in mind that the readiness to act and the speed at which such sector will react to impulses coming from without will be less than those of a modern sector. This is quite clear since the impulses come from the actions of the contemporary sectors, and thus follow the laws governing the movements in a contemporary economy. The backward sectors require more intensive and energetic actions, i.e. the creation of the conditions of rational economic action is not sufficient. The organizational and directing activity must be such as to join the activity of the backward sectors to the whole of the economic circulation through gradual transmissions. Credits, for instance, should be granted to the backward sectors in kind rather than in cash, and repayment in kind must also be accepted.

The forms of direction must be very elastic, but it will always be necessary to apply some measures other than economic. These may even prevail at the beginning, but must always coincide approximately with the interests of the sector. If they do not, the backward sector will be led not towards rational economic action but into the camp of opposition.

### Influencing the Behaviour of Those Engaged in Economic Life

The incentives should be used not only to influence the attitudes of the various sectors and enterprises but also the behaviour of the workers engaged in economic activities. Incentives acting upon the individual worker are the wages, salaries, bonuses of various kind, the incomes of the agricultural population depending on the amount of goods offered and on their price. In a rapidly developing economy the relative income levels can be used effectively to influence the migration of labour. It is therefore evident that the economic leadership must frame an adequate wage and price policy.

In an economy disposing of abundant manpower but having a shortage in qualified labour, the wage and price system should be so shaped as to stimulate the population to attain higher qualifications. When determining the earning condi-

tions of highly qualified manpower, several opposite factors must be taken into account. The population, particularly the youth, should be stimulated to embrace professions of vital importance for economic growth, and due consideration should be given to the competitive character of the conditions associated with mobile labour, i.e. to the fact that there is a shortage of highly qualified labour in the advanced capitalist countries. On the other hand, the development of privileged layers must be prevented in a democratic society, and the capacity of the national economy to reward qualified labour should be assessed. Since the circumstances do not permit a very high level of income for qualified manpower, it is evident that the wages of the unskilled workers must be kept at a comparatively low level. The earning conditions of unskilled labour are limited not only by the circumstances mentioned above but also by the ratio of the incomes of rural and urban workers. When economic growth is started, rural labour starts to migrate towards the towns. It is the income conditions of unskilled industrial labour that affect mostly the dimensions and rate of migrations from the rural communities towards the urban and industrial centres. It would be harmful if young labour were to leave agriculture in all too high numbers and if more workers were to move into towns than can be absorbed by the growing urban economic activities.

This would mean that the town would obtain poverty-stricken, down-hearted thousands and hundreds of thousands without homes and jobs, instead of workers.

The incomes of those engaged in production must be associated with their actual achievements and professional qualification. What is needed is a simple wage system which can be understood even by the simplest worker. It is expedient to have the income of the workers co-ordinated with the actual economic results of the enterprise.

The incomes of the agricultural population, as has been pointed out earlier, depend on the amount and the prices of the marketed products. When influencing agricultural incomes the starting point should be the stimulation of production in both quantitative and qualitative respects. It is also evident that when introducing or extending crops highly important for the national economy, the producers have to be made interested by an advantageous price level of the desired product. Yet it would be an error to think that with higher agricultural prices the incentives for production will be stronger. The stimulating or inhibiting effects of the prices is valid only within certain limits. It is clear that the increase of potential income stimulates production only as far as the farmers' needs—and the possibility of meeting them, that is, the supply of goods wanted by the farmers—keep pace with their income. Otherwise the farmers would not feel it worth while undertaking further work. In a rapidly growing national economy, their incomes will tend to rise even without additional work since, in the wake of a rapid rise of demand, the agricultural prices show also an upward trend. This may become a serious element of disequilibrium since the increase of the farmers' incomes is no longer dependent on, and the consequence of, an increase of production.

In this short survey of the principles governing the wage and income policy we have started from the requirements of economic growth, i.e. we have described a

situation that can be regarded as rational from the economic point of view. It is evident that a wage and income policy that can be looked upon as rational from the economic angle will have more than one opponent. The trade unions will want to raise the wages of the workers higher than what the government is prepared to accept, since this would involve an automatic rise also for the unskilled workers. Moreover, the unions are governed partly by emotional motives requiring that the domestic technician or skilled worker should earn not less than what their foreign colleagues working in the same plant do. This would, however, raise the total wage income to a level exceeding the power of the national economy. Production will not be able to keep pace with wages, the savings necessary for further investments will not be attained and inflation will be unleashed.

Will the various governments be able to inhibit these possible dangers? This depends, in the first place, on the firmness of the political power and on the relationship between the government and the trade unions. Under governments which the trade unions feel closely associated with, i.e. which they trust, this process can be stopped. Under different circumstances the entire economic growth may be jeopardized.

### Methods of Direction of a Non-economic Nature

From the general scarcity of the economic resources it follows that the non-economic means and instruments must play a greater role in the influencing of the economic sectors in the developing countries than they do in an advanced economy. These non-economic means are, naturally, applied in every economy, but in the advanced countries the leadership has a wide range of alternatives from which to choose. In the developing countries the leaders are often compelled to choose the available means which are not always the most suitable.

Of the non-economic means let us first deal with the normative prescriptions or direct instructions, prescribing some attitudes or actions and prohibiting others. Interdiction is the contrary of stimulation, i.e. the attachment of some disadvantage to an action undesirable from the angle of national economy.

The official prohibition of the importation of some commodity may be regarded as a constraint or coercion, while high customs duties can be considered to be a restraint or hindrance.

Also, in the case of a normative regulation of some question the behaviour of the sectors, economic units and individuals adversely affected by the regulation has to be taken into consideration. These sectors and economic units try to defend their interests against the normative prescriptions. The conflicts derive from the fact that certain macro-economically undesirable or possibly irrational actions are perfectly rational for certain sectors or enterprises since they yield profit. Once the normative prescription enters into force or, what is more, is implemented, the economic units and individuals affected lose some profit. Owing to the automatism of their attitude they do their best to elude them. The counteractions of the economic

units affected depend on the nature of the economic process affected by the normative prescription.

The official prohibition of import, for instance, if it is otherwise rational and tolerable from the standpoint of the national economy, can be more or less enforced since smuggling at a large scale is seldom possible. It is more difficult to enforce a production prescription telling the farmers how much of a certain crop they are expected to grow.

Such prescription may become necessary presumably because the internal conditions of profitability in agriculture may clash with the interest of the national economy, that is, with the demands of the domestic and foreign markets. If it is prescribed for the farmer to grow a product which would yield him no or small profit, he will find the ways and means to assert his own interests while formally observing the prescriptions. If, for instance, he is told to grow a certain crop on at least one-fifth of his area, we can be fairly sure that this will be the worst fifth of it, and that he will afford the least possible care for labouring the soil and tending the culture. In other words, while the irrelevant element of the prescription (the area sown) is observed, its really relevant element (the quantity to be produced) is frustrated.

Well chosen administrative measures applied even under difficult equilibrium conditions may have a very positive outcome. The prohibition of the import of some commodity, for instance, may result in a boom of the home production of substitutes. In such cases, while the prohibition adversely affects the income of the importers, it encourages the production and increases the profits of domestic industry. The raising of the import duties—representing a constraint in this sense—is one of the preconditions of the development of domestic industry.

It follows that the administrative prescriptions may have very different effects. But if the interests of a sector must be violated by a measure, it is expedient—if possible—to apply it in such a form that some juxtaposed interests in the same sector or in some other field should benefit from the same measure. Thus, the central leadership may acquire allies in micro-economy helping the measure to be accomplished.

Owing to the scarcity of the economic resources the application of administrative prescriptions is inevitable in a developing economy. Historical experience shows that in the presence of a comprehensive conception of economic policy and of an advanced system of economic control such prescriptions may not only prove effective in preventing, at least temporarily, major imbalances from developing but may also stimulate or induce the expansion of economic activities. Nevertheless, beside stressing these possibilities, I wish to point out that it is not expedient to resort all too often to this method or to consider it a panacea for all equilibrium troubles. Administrative prescriptions can assert themselves only as part of a comprehensive conception of economic policy, provided that most elements of the conception are going to be implemented through economic means, and that real and potent micro-economic interests can be mobilized as allies helping to enforce the administrative measures in question.

## Political and Social Means

The political and social means play an important role in all spheres of rational economic action. This is quite obvious in a developing economy because

- the sectors and economic units have not yet acquired sufficient experience in assessing all direct and indirect consequences of a rational economic action that is to be decided on;
- there are great differences between the reaction speed of the various sectors, and some of these differences must and can be lessened by political persuasion;
- the interest of the national economy requires from certain sectors to act, temporarily, against their own short-term interests;
- emotionalism is stronger than rationalism in society, hence also in economy;
- public thinking and opinion on the fundamental economic problems has a strong impact on the position of power.

We have often said that the balance of political power in the developing countries depends on two decisive factors:

- a) the unity, resoluteness and abilities of the leading layer,
- b) the relationship between the leading layer and the nation.

It is not enough for the leading stratum to be loyal and obedient to the regime; its enthusiasm must pervade the nation as a whole. The members of this layer are aware of the differences existing between them; some are close to, or possess, power, others must be satisfied with minor posts. Nevertheless they all feel like founders who have not simply inherited but created the regime in power. Hence they are the truest supporters of the system. If, however, power slides into the hands of one person, this layer must lose its importance. The "director" becomes jealous of the personal political weight, popularity and mass background of these people. The cliques of opportunists will avail themselves of this jealousy to oust the most prominent exponents of this layer from the power.

The unity of the leading layer also depends on the appropriate use of incentives, that is, on the distribution of positions and public offices. The personal incomes associated with these posts are, no doubt, important but they are by no means decisive for most of these people.

Under normal conditions, that is, in the absence of personal dictatorship, the purpose of political persuasion within the leading layer is to moderate personal ambitions. The point is that some people are reluctant to let others penetrate the sphere of power, or else use their privileged position to acquire undue economic advantages. The leaders must explain to these persons that their attitude—despite their unquestioned loyalty—jeopardizes the power by eliciting the indignation of the masses.

In other words, the leadership must wisely combine the application of incentives with political persuasion, when dealing with the political *élite*. The behaviour of this *élite* is of paramount importance when the outer circle of power and the nation as a whole is to be convinced by political methods of the necessity of thrift and sacrifice.

Among the layers belonging to the outer circle of power, political work must be carried out with particular intensity, because they do not always understand the logic of the measures taken by the government but are inclined to agree with them if led by emotional and confidence motives. Later on, also the behaviour of the outer circle of power will be influenced by concrete experience. If, for instance, the rapid economic growth promised by the government fails to materialize, this layer will feel particularly disillusioned since, relying on emotional and confidence motives, it had silenced its own anxieties, siding whole-heartedly with the government against the hostile elements. These people may have been treated by their friends or even relatives as opportunists or traitors. When it turns out that the government they have supported is unable to solve the national problems, they lose their reputation among their followers while their rivals start an offensive against them. Under these conditions they become cautious, refrain from engaging themselves. A far-sighted political and economic leadership will do its best to regain the confidence of such people. A short-sighted leadership will set them aside and cynically come to some arrangement with their rivals. Yet such a behaviour undermines the ethical foundations of the regime, eliciting contempt rather than support.

Political means should be used intensively to influence also the behaviour of the masses. The economic sacrifices required from the masses will for a long time exceed the advantages and privileges that can be granted to them in the future. For the persuasion of the masses many economic arguments should be used. Endeavours should be made to persuade them that the enterprise undertaken by the country is reasonable and advantageous for all. It is quite evident that the masses are unable to understand the very intricate economic correlations as a result of which aggregate targets will or will not be attained. Consequently, their behaviour will be governed by the political confidence or mistrust towards the leaders. Patriotic arguments should also be used for the persuasion of the masses since they generally understand the vital problems of national existence and, imbued with national pride, will be more ready to undertake sacrifices. But when drafting the persuasion campaign in a national-patriotic tone, caution is indispensable since references to these feelings are liable to arouse national or tribal conflicts or to stir up hatred of the neighbouring nations, without the leaders having any similar intentions. The political persuasion of the masses must not be detached from realities since the ultimate aim is the guidance of the actions of the masses in the spirit of economic rationality. What should be explained is not only the fact that the government is acting correctly but also what the simple workers are to do.

It is not expedient to "overpraise" the government's role and thereby to make the impression that there is nothing left to be done by the masses themselves.

The political methods and means can successfully be applied for the activation of the various economic sectors. Economic organizations, of course, can and should be best influenced by economic means. Yet, as has been pointed out above, the general (political) relationship between the government and the sectors has a vital influence on the attitude of the economic sectors. The long-term targets and the

general endeavours of the government should be well known to the participants of economic life. It is inconceivable that the interests of the various sectors—which are often opposed to one another—should in all cases coincide with the national economic interests represented by the government. Yet in the case of conflicts the sectors in question should approach the national economic interests at variance with their automatism and their operational principles. If a sector feels that the government has a friendly attitude towards it, it is more inclined to make certain concession. Otherwise it will look upon the conflict as a linker in a set of conceptions and actions meant to liquidate it or at least severely to limit its activity.

When the micro- and macro-economic interests come into conflict, it is of particular importance for the intentions and the motives of the government to be understandable and clear. Political persuasion promotes the better understanding and the fertile co-operation between the government and the various sectors. The method of political persuasion can be applied with success only in sectors whose interests, at least for a longer perspective, coincide with those represented by the government, are close to them or at least do not run against them.

### Science, Information and Organization in the Service of Economic Direction

The government, as the initiator of the economico-political conception, possesses all operative and statistical information reflecting the functioning of the economy. Various scientific institutions analyse and assess the phenomena and tendencies in world economy. It receives reports on the political atmosphere and trends of the country as well as on the international political events.

Hence the government is also the centre of information. Information is known to be power. History shows that the information centres and the centres of power generally coincide. The governments of the developing countries are not only informed on the events but are also able to influence their course through their conceptions and practical measures.

Beside the government, the sectors and also the enterprises need information. In a system of interdependent economic processes the plans of one sector or enterprise embody certain purchases from others and thus involve changes in them. Hence the activities of the sectors and enterprises can be influenced, up to a certain extent, by merely informing them about the conceptions and endeavours of the other sectors.

Economic direction must, naturally, make use of the vast possibilities inherent in information. By a systematic transmission of information the economic leadership combines the activities of the sectors and enterprises. If this works successfully, the complementary investments involved by the primary ones will be made in time by the sectors and enterprises concerned. In some cases, however, the simple conveying of information is not sufficient because the capacity of reaction of the sector in question is limited.

Such is the case in the backward sectors. This calls for the creation of organizations connecting them with the information centres of the economic leadership. These organizations are called upon not only to convey information but also to shape the activity of the backward sector with respect to the expected situation. It follows from these tasks of adaptation that these organizations should belong to the sector in question and not to the state. It is not expedient for the state to interfere directly in the internal activities of the various sectors.

It is quite clear that science, information and organization constitute a considerable power in the intricate system of economic direction.



## The Role of the State Apparatus and of the Regional Organizations in Economic Direction

In the following we shall rely on the fact that the economic decision concerning the middle-range plan accepted by the body of the leading politicians must comprise the following elements:

- a) the targets of economic policy, i.e. the objects of rational economic action;
- b) the distribution of the means and energies available at the beginning and those to be created during the growth process;
- c) the anticipated behaviour of the sectors with due regard to the internal laws governing their moves and to the impacts produced by the measures and methods meant to influence them;
- d) the system of measures and actions relating to the influencing of the sectors by non-economic means.

If the economic conception contains all these elements, the next step is to examine the problems of implementation. But implementation means a continuous economic activity and not a series of discrete actions to be accomplished. It must be realized that the economic processes will not materialize in full harmony with the preliminary projects because

- mistakes may have been committed both in framing the conception and in outlining the probable behaviour of the sectors;
- the amount of resources necessary for the implementation of the original targets does not become fully available during the plan period;
- unforeseen situations may develop whose mastering, in the spirit of the original conception, requires new decisions and actions;
- certain partial tasks contained in the conception have turned out not to satisfy the requirements of rational economic action;
- changes in the political power may take place at home or in international politics which then affect the targets, the available resources and their planned distribution.

### Operative (Continuous) Economic Control

Central economic control is achieved not only through the comprehensive economic conception but also through operative economic decisions.

In a centrally directed economy the actual economic control, the implementation of the economic conception, is the task of the state apparatus.

In reality, decision making and implementation are not so strictly separated as has been outlined here. The state apparatus plays a very important part also in the preparation of decisions. When analysing the process of decision making we dwell on this problem. On the other hand, the leaders of the state apparatus participate also in the work of the supreme political bodies which take the highest decisions, and it also occurs that the decision is taken by the highest executive organ, the government. In spite of this, the most characteristic activity of the state apparatus is not decision making, i.e. legislation, but execution, i.e. implementation.

Hence the periodical and the permanent tasks of implementing the economic conception devolve on the state apparatus. Assuming that the economic conception is correct, the "executive capacity" of the state apparatus is determined chiefly by the following factors:

- a) the relation of the state apparatus to the supreme political bodies, that is, its expectations concerning the position of the latter,
- b) the relation of the state apparatus to the political power factors not represented in the supreme political bodies,
- c) the relation of the state apparatus to the various economic sectors,
- d) the qualitative and organizational level and the manpower supply of the state apparatus,
- e) the internal laws governing the operation of the state apparatus (administration).

### The Relation of the State Apparatus to the Supreme Political Bodies

The political power conflicts, the clashes of interests developing around the economic decisions do not disappear in the process of implementation. The leaders of the state apparatus are members of the supreme political bodies and it is on these bodies that the appointment, of the higher-ranking civil servants depends.

If different shades and tendencies develop within the ruling political party or other political organization (left wing, centre, right wing, etc.), then—depending on the power conditions—they will all try to place their exponents in the state apparatus. It may therefore be presumed that the attitude of most leading persons and higher civil servants working in the state apparatus is determined by some political relations or dependences. If, for instance, the right wing of the ruling political organization had originally opposed some reform but came to a compromise with the majority in the hope of protecting their interests later, during implementation, then the civil servants depending on the right wing of the political body will also be intent on delay or moderation. Their behaviour, however, almost never follows mechanically and exactly the attitudes of their political supporters since they act in another medium, within which they have viewpoints and interests of their own. It may occur, for instance, that the political right wing opposes some reform but must make concessions because the implementation of the reform tends to

pede the operative economic activity since a planned measure coming into conflict with economic reality becomes irrational. The purpose of the plan is to make economic action rational. Hence the state organ (ministry) responsible for the medium-range economic conception must maintain close contacts and enter into co-operation with the state organizations playing a decisive part in the direction of operative economic actions. In most countries the operative economic direction is the task of the ministry of finances.

The central planning organ as a centre of economic policy has also contacts with the higher instances. The supreme political bodies and the persons heading the supreme direction are, obviously, very much interested in the work of planning. We have made it clear several times that in the long run, the fate of a government or regime is decided by the content and the success of its economic conception. In the short run it is conceivable that a government possessing the confidence of the masses maintain its power even under extremely adverse economic conditions (when, for instance, there is a threat to the existence of the nation). But this is only possible because the masses are convinced that when the outer menace is eliminated or substantially reduced, the government will be able to continue a successful economic policy. The fate and future of every high political leadership or leader depend on whether it is able to solve the decisive task facing the nation—that is, achieve economic growth. As far as the accomplishment of the interdependent economic tasks is concerned, these are included in the medium-range plan.

### The Contacts of the Central Planning Organ with the Supreme Leading Bodies

The plan is also one of the chief instruments of political foresight and action. A good economic conception forecasts the anticipated tensions, the shifts in the political power factors, the expected position of the different social layers as well as the economic and social changes in the various regions. Hence it is clear that the planning organ must have direct links with the supreme political leading bodies, i.e. with the actual possessors of power.

These links can be established in two different ways:

a) The work of the planning organ is directed by a Planning Committee whose president is the actual possessor of power (president, prime minister, etc.). The vicepresident of the Planning Committee may be the minister of finances who by his function is able to ensure the continuity of the connection between planning and operative economic control, on the one hand, and flows of goods and money taking place in the economy, on the other. The committee consists of theoretical and practical experts (university professors, leaders of research institutes, advisers, etc.). The secretary general of the Committee is the leader of the planning organ.

b) There is no planning committee but the planning organ is directly subordinated to the actual possessor of power.

### A Heavy Contradiction: To Solve Complicated Tasks amidst a Shortage of Experts

We have said that alone the state is able to create the conditions for accelerating economic growth and to start the growth process. We shall not repeat our statements and argument in this respect but only recall that the acceleration of economic growth in the developing countries is a substantially more complicated and complex task than in any other kind of countries. The intricacy of the task should be understood not only in the absolute but also in the relative sense on account of the extreme scarcity of the development energies. With respect to the economic direction it follows that the complicated tasks must be solved amidst a general shortage of specialists. As a consequence of this, the methods of economic direction in the socialist countries can be looked upon as encouraging factors and their variants used in the advanced capitalist countries as having some informative value yet none of them may claim to offer examples suitable for imitation. Obviously, the shortage of experts cannot be made the base of a system of direction as can their relative abundance. This statement would hold true even if the system of economic direction in the advanced countries were functioning without flaws, but this is not the case.

This very difficult situation, confronting the governments and the state apparatus of the developing countries with almost unsolvable tasks, has also certain moderate advantages. One of them is that these governments are not bound by institutional traditions (except for traditions created by colonial administration and hampering the accomplishment of the present tasks to a certain extent) there are no fossil administration and economic institutions existing irrespective of the present functions and no dogmatic norms related to them. Thus they must embark on new roads. (When discussing the problems of tradition, let us mention in parentheses that the inherited social traditions are extremely strong in the developing countries; it is only the bureaucratic traditions of a state apparatus looking back upon a long past that are absent.)

Yet this and similar modest advantages must be assessed soberly, since the traditions and norms embodied in the social institutions in harmony with rational economic action have greater advantages than they have drawbacks. On the other hand, trail-blazing itself consumes tremendous energies. In this respect, too, contradictory requirements must be co-ordinated since the control of economy by the state requires a well-trained apparatus, yet in the developing countries this can only be built up gradually and over a long period of time. In addition, when defining the spheres of competence of the state, other than economic requirements must also be met. In a new state a considerable part of the spheres of competence must evidently be centralized, in order to strengthen the situation of the central power. The people, the institutions, the regions must be made to feel the existence of a central power and the fact that certain vital questions depend on it. This may prove advantageous even when the existence of the central power is expressed not only in stimulation to actions according to the new norms but also in preventing or prohibiting actions

according to the inherited ones. That is why certain fundamental decisions must be centralized, in spite of the scarcity of material and human resources for the purpose.

A certain degree of centralization is rendered reasonable by the fact that there is no true competition between the centralized and decentralized decisions. Sometimes there may be no freedom of choice either, because the material and organizational conditions for taking decentralized decisions are deficient. The true alternative often lies with the selection of the spheres that we want and are able to control and influence while some others must be permitted to obey their own laws. It is evident that under such conditions contradictions and conflicts develop between the processes created and developed under the effect of the central influences and those going on in the spheres acting spontaneously. Conflicts of this kind result in the slowing down of economic growth.

### **It Is not Expedient to Build up a Multistage System of Control in Developing Countries**

Economic life often requires quick decisions. In such cases delays in decision making may involve serious economic losses. The more stages are inserted in economic control, i.e. the more centralized the decisions are, the more likely it is that the decisions will be made too late. In a multistage economic control the remarks and suggestions of the economic organizations (enterprises, etc.) take much time to reach the decision-making organs, and also the actions deriving from the central decisions must go through several stages before they are accomplished. If the decisions are too much centralized the state enterprises may be handicapped against their rivals (the capitalist sector, the small-scale industry) having by the nature of things, more freedom of decision making and manoeuvring.

In order to improve the system of economic control, efforts should be made to permit the economic units independently to take operative decisions. This, obviously, cannot be ensured prematurely since this order must be in conformity with the existing norms and practice of rational economic actions. Hence it can assume a definite shape only after a certain time and after the acquisition of some experience, but this time must not be postponed too long. The developing legal system should partly serve as a frame for the actions of the state power and partly substitute them where the rational actions of the economic organs and individuals can be adjusted to the legal system, being parallel to the principles thereof.

The difficulty in developing a system of economic control in the developing countries consists in the necessity of co-ordinating highly contradicting requirements. Control must cover the series of interdependent actions contained in the medium-range plan and also the operative economic actions. Yet this is rendered extremely difficult by the shortage in experts and the absence of experience. The consolidation of power requires the centralization and co-ordination of economic actions, but the weakness of the leading apparatus makes it extremely difficult to

the processes arising during action and, having outlined what to anticipate, should determine

- the relationship of the two or more organizations in the outlined order of the processes;
- the correlations and interdependences conditioning the relative actions of the various fields of competence;
- what to do to ensure that the measures taken by one organ of state administration should promote the attainment of the aims set by other participating organs.

The difference between the normative-static co-ordination and this more elastic system is much like the difference between the classical (static) system of balances and the input-output system.

One of the starting points of co-ordinated operative economic policy is the medium-range plan, since all concrete dispositions are meant either to improve the implementation of the plan or to revise certain targets and endeavours. It is thus clear that the relationship between the plan and the operative economic policy must be clarified in all concrete cases.

The other starting point of operative economic policy is the actual economic situation, namely, its requirements in respect of intervention: for instance, disequilibrium is threatening the domestic market or foreign trade; the budget spendings have soared; the degree and rate at which the economic activities are expanding are lagging behind the degree and rate at which credits are granted; the investments are slow to materialize as a result of unreasonably prolonged implementation; there are setbacks in one of the industries; the growth rate of productivity has slowed down, etc. The plan has no remedy in store for these shortcomings, the point being exactly that these phenomena fall short of what has been planned. Efforts must be made to find a coherent remedy, based on a uniform conception, to these closely interconnected phenomena appearing in different fields. Otherwise, the operative economic policy is likely to become inconsistent and, when making order in one field, will cause trouble in another. If, for instance, credits are heavily curtailed this will involve an even lower rate of investment, production will fail to attain the planned targets, and shortages will arise. Economic decisions of this type have been referred to as "one-sided" dispositions. If such dispositions tend to dominate, then each new operative decision meant to remedy the distortions and difficulties caused by a preceding one will result in new troubles which will again have to be remedied by means of new dispositions. Under such conditions sudden expansions and recessions are likely to occur in the various economic fields, and this is a very unhealthy symptom.

### Co-ordinated Action Programme

In order to secure a comprehensive framework for its operative economic policy it seems expedient for the government to approve a co-ordinated action programme at the beginning of every year. With the present level of development of most countries in question it would not be reasonable to regard such

strengthen the position of an office headed by a person supported by the right wing. Clearly, this person will try to persuade his political supporters not to oppose the reform too rigidly. He may even promise to take special care of his supporters' interests in the course of implementation. Moreover, if the political situation is uncertain he may even try to find contacts with other political groups fearing that the position of his original supporters may weaken. Thus he tries to ensure approval for his actions in order to counterbalance disapproval coming from elsewhere. It also frequently occurs that the senior civil servants supported by opposed wings of the political body agree between themselves regarding some set of actions, in order to be able mutually to rely on each other if a shift in the political balance occurs.

The relation of the state apparatus to the different economic sectors is also an important factor. Each economic sector tries to organize its lobby in or around the political body and in the state apparatus. The means used for this purpose depend on the political and economic weight of the sectors.

It is evident that also the political parties possessing lesser economic power but relying on large masses have a strong lobby (e.g. small industry, small-scale agriculture, etc.). The economic potential has a greater impact on the state apparatus than has mass support. It may therefore be presumed that—disregarding certain exceptions—the state apparatus exerts a braking or mitigating effect on implementation because it considers the advantages to be granted to the sectors representing mass power less important than the disadvantages to be imposed (say, by taxation) on the economically strong sectors which invariably try to influence the state apparatus in favour of a "tactful" implementation. When assessing this braking effect the political atmosphere should be taken into account because such an attitude may turn out to be dangerous in strained situations. In a state apparatus anyhow operating slowly and with poor efficiency, it is very difficult to reveal such hostile activities because in the case of delayed or inefficient implementation it is difficult to find out whether it has been caused deliberately or by the simple inertia of the apparatus.

The state apparatus which had been the object and aim of the political struggles soon becomes more or less independent of its reorganizers or conquerors and of the masses in whose name it has been conquered, and begins to follow its own laws in the course of implementing the development conceptions established by the political body. It is politically less combative than the political body, and may even assume the function of a mediator in certain cases. From the objective viewpoint the stand of the state apparatus is more "realistic" and "professional" since the principles announced by the political body can serve only as a framework for action in the course of implementation. In execution, the planned measures and regulations come up against a diversity of processes, interests and power relations which they affect and also become parts thereof.

But the principle of professional competence expects the economic direction to fulfil other requirements than are fulfilled by the traditional state functions. In the course of economic control we have to do with live economic processes to which the content and speed of our actions must be adapted.

Alternative a) has, in our opinion, more than one advantage:

- it ensures that the actual possessor of power deals only with the most decisive economic decisions and does not waste his valuable time with second- or third-rate questions,

- the control through the plan and the operative economic control are linked together,

- external specialists and experts can be engaged, what is more, a direct contact can be established between science and the highest leadership.

Alternative b) seems to have several drawbacks:

- the actual possessor of power has no time to direct the activity of a ministry. To give only one reason: in our days the leading statesmen become more and more engaged in foreign policy and are required to make frequent visits abroad, as well as to visit from time to time the various regions and provinces of the country. When the organization of the new state is yet immature and strong particularism prevails, the person of the head of the state may constitute an important link between the various regions, nationalities, tribes and religions,

- no immediate contact is created between the control through the plan and the operative economic control,

- the opinion of the scientists reach the head of the state through subordinated persons and institutions,

Judging on the basis of the above considerations we regard alternative a) more suitable for the purpose than alternative b).

As a third alternative it is conceivable that the possessor of power has a reliable collaborator of high capacities. This political personality may assume the task of heading the planning organ. Being a personal friend and collaborator of the head of the state, he keeps him fully informed and has his conceptions carried out.

In this case, too, it is important to find the ways and means of connecting the two forms of economic direction and to include the creative scientific forces into the course of planning and economic actions.

Whichever variant is chosen for the development of the higher contacts of the planning organ, it is evident that

- the office of the planning organ must not be too large since the number of the available experts is limited,

- the collaborators should be chosen among economists, engineers, agronomists etc. much rather than among jurists and administrative experts,

- they must be trained to be many-sided since in a small office no deep-going specialization is possible and also because only versatile and farsighted people are able to think in terms of national processes and interrelations instead of thinking in terms of competence and authority,

- the help of the internal and external experts must be made use of in every phase of the work.

Planning makes coherent and co-ordinated economic actions theoretically possible and practically easy. But the plan may and should embrace only the most important national-economic correlations, otherwise



- the plan will be lost in details instead of determining the direction of actions,
- the central leadership will start acting instead of the economic sectors and organizations,
- the everyday contacts between the various sectors and economic organizations will be also prescribed by the plan, instead of developing through the market.

When these preconditions are satisfied the plan may indeed be looked upon as the highest form of co-ordinated rational economic actions with respect to a medium-range period.

### Co-ordination of the Operative Economic Policy

The co-ordination of the operative economic policy to be pursued by the state organs and the political organizations is a major problem. Co-ordination is necessary not only in order

- to eliminate the possibility of contradictory actions within the state apparatus and
- to achieve harmonic co-operation between the actions of the various state organs undertaken to achieve the common aim, but also in order
- to lay the foundations of their joint actions, i.e. their harmonious co-operation.

The elimination of the contradictions in a new state apparatus under rapidly changing political and social conditions is in itself a great achievement. The economic ministries will evidently assess the economic situation from different angles, relying on different efforts and outer impulses. Hence their ideas of remedies and development are also different. Moreover, their approach and competence cover only parts of the complexity of economic processes, hence they are inclined to one-sidedness which results in untoward consequences. All too often specialized ministries feel that they could solve their problems better if their competence were larger, and use their political connections for this purpose. Without a central direction and will there is no homogeneous government; there are only juxtaposed ministries.

Hence the necessity of incorporating the modes and frames of the operative, every-day economic policy into a co-ordinated system. Let it be understood that by co-ordination we understand a dynamic arrangement of actions and not a static order of things. At present, the greatest weakness of what we refer to as co-ordination consists in its all too normative and static character, i.e. in the endeavour to delimit the spheres of competence in theory.

The regulations creating static spheres of competence are known to prove ineffective in action since problems arise to which the normative arrangements do not and cannot apply. Hence co-ordination should weigh the expected trends in

achieve these tasks. The limits of centralization, however, do not mean that the necessary economic actions can be performed more successfully or at least with the same efficiency in a decentralized form. And, although consequent economic control requires the methods of decision making and action to be adapted to the speed of the economic processes themselves, these methods have not yet been developed.

How can these contradictory circumstances and requirements be co-ordinated while evolving the system of economic control? Evidently, prescriptions or norms valid for all countries and every situation cannot be given, only a few principles may be mentioned which are worth considering in the course of evolving the control system.

It seems expedient to look upon the medium-range plan as an economic decision that should be preceded by a sufficiently long period of preparation and be discussed by all leading political bodies (including the parliament) and by the highest instances of the executive power. In this case the medium-range plan will necessarily represent a compromise between different interests and development conceptions, as it should be.

The conflicts and contradictions between the different power and interest groups have, obviously, a continuous influence upon the implementation of the plan, yet its comprehensive economic conception tends to canalize national public thinking and, at the same time, prevents many conflicts that might have derived from a mutual misunderstanding of intentions.

### The Central Planning Organ as a Centre of Economic Policy and Control

The elaboration of the medium-range plan is the task of the central planning organ. With respect to the tasks of this organ very different opinions prevail in the various parts of the world. When planning has but an "indicative" character, the central planning organ may become a scientific rather than an economic centre. A scientific institute entrusted with planning tasks should belong to a ministry playing an important part in the continuous economic control and having a strong representation in the government (e.g. the ministry of finances, the ministry of economic development and so on).

In a developing country, however, the central planning organ must necessarily become a centre of economic policy and control, for otherwise the comprehensive conception of economic policy would be distorted during the operative economic actions. In other words, if the planning organ is politically not strong enough to assert its will, it will fail in to make the medium-range plan the foundation and starting point of rational economic action. If the planning organ is in a subordinate position, with respect to the ministries responsible for the operative economic direction, short-term (and often short-sighted or contradictory) operative measures will dominate. On the other hand, a too rigid insistence on the plan must not im-

a one-year programme directly as part of the medium-range plan, i.e. as an annual plan. Namely, the operative economic policy of the government should be directed to create advantageous economic and political conditions rather than to attain some concrete economic targets. These actions must, naturally, be co-ordinated with the fundamental targets of the medium-range plan, provided that changed conditions have not made them unattainable or irrational. Yet in the latter case the economic conception itself is also to be modified by the planning organ. It may occur that exactly the concrete steps of the operative economic policy reveal that certain targets are untenable or irrational.

The programme of co-ordinated measures should cover, in the first place, such problems as the equilibrium of the domestic market and of foreign trade, the credit policy to be followed in the year with due regard to the dangers of inflation, an added stimulus to production in branches where this is considered necessary, measures to accelerate the implementation of investments, the methods to be applied in influencing traditional agriculture, the problems of balancing the budget etc. On the basis of the action programme, established with due consideration of all these problems, concrete dispositions should be issued.

The co-ordinated action programme is in itself not sufficient since, owing to unforeseen circumstances and difficulties, further operative measures will have to be taken during the year. Yet if the situation and processes are submitted to a careful analysis before drafting the programme and the possibilities and relationships are properly weighed during its implementation, it may be assumed that the operative measures taken during the year will be harmonious.

It would be expedient if the control over the annual action programme were entrusted to some other ministry than the one responsible for the medium-range plan. This would permit the programme and the plan to be checked against each other. Since the annual operative action programme is centered around the problems of equilibrium rather than around the structural changes, it stands to reason that the minister of finances should be made responsible for both the drafting and the implementation of the programme.

Yet the minister of finances alone is not able to achieve co-ordination although he may have a greater actual economic power than that of the leader of the planning organ, as most of the means suitable for influencing the economic sectors and the whole economic activity depend on the dispositions of the minister of finances. It is therefore expedient to create an Operative Economic Committee for the co-ordination of the continuous economic actions, a committee presided by the minister of finances, the leader of the planning organ being the vice-president. The other members of the Committee would be recruited from among the leaders of the economic ministries, and would include also the head of the statistical office, the president of the national bank, as well as domestic and foreign experts and advisers. Accordingly, the Operative Economic Committee would prepare and submit the annual programme of the operative economic policy to the government, on the one hand, and, at its periodical sessions, discuss all problems whose examination and analysis seem to be required by the economic situation.

This would introduce adequate co-ordination also into the sphere of operative economic policy. Co-ordination like economic decision making and implementation in general obviously means compromise.

The parties to co-ordination are governed not exclusively by objective information associated with economic actions but also by problems of power. In this respect they are making efforts to extend the influence and rights of the organization (ministry, supreme authority) headed by them or at least to preserve them as they are. They accept the decisions made in the course of co-ordination, i.e. endorse them "in principle" in the spirit of state discipline, but in the course of implementation they endeavour to improve their positions against those of other state organs. In this field the combatant attitudes of their personnel also has an impact on the leaders since the latter, though being obliged to "compromise", do not like to be accused of spinelessness and opportunism.

There is no doubt that the co-ordination of the operative economic policy involves many problems and difficulties, yet we wish to stress that in a centrally directed economy co-ordinated actions are invariably more useful than those lacking in co-ordination.

The greatest advantage of central direction consists in its ability to integrate the measures to be taken in different fields of the economy into a system of coherent and interconnected actions. If these different fields do not act in harmony or even take steps against one another, then the central direction of the economy becomes formality.

The methods and extent of co-ordination are inseparable from the general development level of the economy. In other words, wide and intricate co-ordination methods may prove good in a complicated economy, but in a developing one only the simpler forms can be used successfully. It is, for instance, much easier to co-ordinate the economic actions of three to four ministries concerned in realizing some common target than to achieve the same thing with a dozen ministries and other supreme authorities. In the latter case the situation becomes difficult not only professionally but also from the viewpoint of power and politics. A smaller number of organs can come to a compromise sooner than many, and also the problems deriving from their political background are fewer. From the economic viewpoint and from the angle of state administration it is desirable to organize as few ministries as possible. From the economic viewpoint a planning organ, a ministry of finances, a ministry of agriculture, one of industry and one of trade would be quite sufficient. Nevertheless, the requirements of the economy and of the state administration are at variance with the political interests. Experience shows that in many developing countries the devoted supporters, the companions-in-arms and friends of the actual possessors of power are usually rewarded by ministerial posts, and so are also the dissatisfied, in order to make them more complying. And some posts must be reserved also for the political personages who had joined the governing party from the ranks of other political parties of power groups. It is also important for the government that persons in possession of a great personal or institutional authority should share the power and the responsibility in a de-

monstrative form. It is probably owing to these factors that there is a strong growing trend in the number of ministries in the developing countries. There are developing countries where the number of ministers runs as high as about one hundred.

From the economic and the administrative viewpoint the atomizing of the spheres of competence, especially without an appropriate background of experience, makes interdependent economic actions extremely difficult if not impossible. Under such conditions the best that can be expected is that every ministry endeavours to achieve a sectoral optimum and, obviously, it is impossible to approach the national optimum in such a way.

It would take us far beyond our scope if we started to discuss the ways and means that can be used for rewarding political merits. Here again, a compromise must be reached between the political and the economic interests, i.e. more ministries are to be organized than would be reasonable from the professional point of view, yet no ministry must be created without real professional reasons because this invariably becomes a ballast on the leadership. Also it is an unfortunate practice to tie down part of the qualified experts in superfluous ministries where they wage long and senseless battles with one another whereas there is a shortage of them in economic life or in the country.

### Shifts in Political Power and the State Apparatus

Finally I wish to raise another question in connection with the role of the state apparatus in economic control, namely, the reactions of the apparatus to the frequent shifts of power. We have earlier said that all political trends represented in the power make every effort to place their exponents in high government offices. Others join the apparatus thanks to the influence of their relatives taken in the patriarchal sense of the term. A considerable shift in power (with this, we do not mean change in the regime as a whole) may have the consequence that the trend or group that has won in strength will want to acquire more positions in the state apparatus. This necessarily involves either the swelling of the apparatus or the replacement of experienced people by unexperienced ones. In the case of a complete change in the regime, however, much more radical shifts must take place in the leading posts. Thus the state apparatus is unable to consolidate.

The problems connected with the reorganization of ministries and the creation of new ones should also be taken into account since in such cases definitive decisions are likely to be postponed for months.

Under similar circumstances the participants in the state apparatus are unable to learn their work properly, the standards usually decrease after every reorganization or shift in power. But how could a demoralized and deteriorating state apparatus be able to fulfil more and more complicated tasks? Here again we come across a conflict between the political interests and the economic and professional ones. But this problem must be analysed more closely since, in the long run, also the political interests require a high standard from the state apparatus. Hence

the conflict arises between the short-term political interests and the economic and professional requirements.

Thus, the problem arises whether it is not expedient to isolate the most valuable part of the state apparatus, the civil servants with the best training and greatest experience, from the sphere of daily political clashes, and so to ensure the prevalence of long-term political interests as well as the economic and administrative interests valid for every period. If this could be achieved, the state apparatus could much better put up with the changes in the higher levels and the reorganizations and personal changes in the lower levels, alike, and the continuity of work and experience would be ensured. In this respect we can quote the Third Republic in France where, despite frequent and rapid changes in the government, the professional apparatus of the ministries preserved a kind of continuity in economic policy. France is mentioned here simply as a precedent and not as an example to be followed; obviously, the social and economic conditions and the history of the developing countries are radically different from those of France between the two world wars. In addition to all this, a major difference consists in the fact that in France this practice was not the consequence of a deliberate decision but the result of many political, social and historical factors.

Here we wish to stress again that a deteriorating level of the state apparatus must sooner or later have catastrophic consequences, which could be prevented by agreement or disposition ensuring special immunity to the best trained and the most experienced specialists and experts working in the state apparatus.

One fact speaks very much in favour of the possibility of achieving this continuity based on experts in the state apparatus of the developing countries—the very heavy shortage of experts and specialists. The regimes opposing the policy of their predecessors find themselves obliged, after a certain time, to collaborate with the same specialists and leading officers who had worked for the previous government. There is hardly any possibility of exchanging them for others: there are not two sets. It is therefore not expedient to dismiss them and make the apparatus weaker, only to re-engage the same people after an interval of a few months or years.

### Significance of Regional Problems

Economic science is paying growing attention to the significance of the regional problems. The regional approach is a fortunate and necessary addition to its traditional way of thinking in "levels" (enterprise, national economy and world economy). A region is not a secondary category meaning simply the spatial distribution and allocation of economic resources. A region, particularly in the developing countries and states covering vast territories, constitutes a historical, geographical, possibly a cultural and economic unit, linked to the national economy through a whole set of intricate interactions and relationships. Certain regions taken in this sense had existed long before the present forms of the state and of the national economy developed. Some regions are known to have preserved their

integrity for long historical periods in spite of having belonged to more than one state.

Regional economic policy is of a particular significance when

- there are considerable differences in the economic levels and standards of living between the regions of a country (backward and advanced areas),
- the regions are inhabited by different nationalities or tribes,
- one or more regions are inhabited by a combatant religious minority,
- the cohesive forces of the national economy are still weak.

These criteria or at least three of them are characteristic of almost every developing country. This explains why the regional economic policy plays such a great role in these countries.

Viewed economically, every country has

- certain raw materials (explored or unexplored),
- an industrial basis of national importance,
- industries (small-scale industries) satisfying local demands,
- a certain agricultural output (to satisfy regional, national or export needs),
- communal installations (water works, transport systems, town building),
- a certain amount of manpower surplus,
- trade activities,
- certain accumulation and income potential,
- investments made and potential investments.

Let us examine what happens in regional respect after the beginning of economic growth.

First of all the government makes every effort to increase accumulation, which is a serious burden on the population of the country. The burdens are distributed partly over various layers or classes of the society, partly over regions. The regional form of this distribution has been discussed in the Chapter 7 on accumulation.

In a regional respect the situation is that greater burdens are imposed in the economically more advanced and stronger regions. If the regions heavily burdened for accumulation purposes are inhabited by others than the representatives of the leading nationality, tribe or religion, then these people will find the uneven distribution of the taxation detrimental to the rights of nationalities, tribes or religions. In such cases a certain community of fate develops between the inhabitants of the region, and this may turn out stronger than the social tensions of the social layers or classes within the region.

The feeling of frustration is enhanced if the means accumulated in one region are utilized, according to the national plan, in some other region. A case in point is when the financial means deriving from the direct and indirect taxation of an agricultural region, where export crops yield high income, are used to industrialize another region. These grievances (real or unfounded) lead to political discontent because the inhabitants of the region in question feel that the central government is acting against them and to the benefit of other regions (tribes, nationalities, religions).

If, on the other hand, the government allocates the bulk of investments to the more advanced regions, then the interregional differences go on growing because the well-to-do regions become richer and the poor poorer. This would prevent the national system from becoming more homogeneous, the less developed areas gradually losing contact with the advancement of the economy. In this connection the usual argument is that the investments are much too expensive in underdeveloped areas on account of the backwardness of the infrastructure.

This argument is not quite pertinent since—apart from quite uninhabitable deserts—housing, roads, supply of water and energy must be developed everywhere in the developing countries, these being known to be poorly supplied in these respects. If in a settlement new plants are being established without an appropriate development of the infrastructure, the standard of the communal services soon falls to the detriment of the population, mainly of the old inhabitants.

If the standard of communal services deteriorates, great efforts have to be made for years to develop the communal establishments to be able to restore the original standard amidst the rapid increase of the population.

The discontent of the earlier settlers may soar high especially if the new industrial plant engages workers from other regions or tribes because thus the contradiction between the economic interests is likely to be transformed into conflicts of tribes, nationalities or religions.

It thus follows that, having outlined the conception of economic policy as a hypothesis, the next task is to examine the regional problems involved in it. The analysis should reveal the contribution of the regions to the tasks of the conception, i.e. the national plan. The following questions await answer with respect to each region:

- what and how much raw material are to be extracted and utilized in the medium-range plan,
- what development rate is ensured for the industrial basis of the region by the new establishments, by the expansion of the old ones and by a better exploitation (e.g. multishift operation) of the existing capacities,
- how should the local (small) industries develop,
- what are the trends in the agricultural production of the region and in its commodity production with due regard to exports,
- how can the living conditions of the population (purchasing power, development of communal services, infrastructure, etc.) be developed,
- what should the role of the region be in national accumulation and in contributing to budget incomes, and what amounts will be allocated in the form of investment and budget spending,
- what major projects will be accomplished,
- how will the region affect the national labour market by its economic development, what emigration or immigration of manpower is to be expected,
- how will the anticipated economic development transform the social and political conditions of the region,



– what will be the relation of the economic development of the given region to other regions?

It may turn out that after having outlined the expected economic situation of the regions, the plan hypothesis is to be modified.

If, for instance, the accumulation imposed on a region is found to be comparatively high, the whole accumulation plan will probably have to be reduced, since it is hardly conceivable that some burden lifted from one region can be imposed on another or others without further ado. Exaggerated taxation will elicit sharp political tensions and lead to conflicts between nationalities, tribes or religions not only in the affected region but in others as well.

### The Problem of Backward Regions

When analysing of the conception from the regional point of view we may find that in some regions, lying at a great distance from the main routes or from the sea or poor in explored raw materials, etc., there are comparatively few or no major investment projects. The backwardness of such a region will rapidly increase as soon as economic growth is started, the region will remain outside the dynamic sphere of the social and economic changes and remain stagnant amidst a development around it.

The stagnation of the backward region involves many negative economic and political consequences, such as:

- a) manpower becoming superfluous within the traditional economy (chiefly young workers) will leave the region and increase the oversupply in the more rapidly developing regions,
- b) the development of the internal market is limited to the advanced regions,
- c) the economy of the backward regions does not integrate into the national economy,
- d) under particularly adverse conditions, the given region becomes depopulated.

To counteract these negative consequences it is expedient to draw the region into the process of economic growth in an intensive manner. To achieve this aim efforts should be made

- to secure state investments for this area,
- to encourage domestic capital to invest in this area (by granting considerable tax exemptions and advantageous credit conditions),
- to promote the development of the local economic activity by granting state credits,
- to encourage agricultural production,
- to connect the region gradually to the communication system of the country.

No doubt, the development of the backward parts of a country requires sacrifices from the government and the population as a whole. The investments are more expensive and the production costs are higher. What is more, those sacrifices are to be undertaken by countries poor in capital and by populations living anyhow

at low standards. Nevertheless, it must be realized that no homogeneous national economy can be created if the differences between the regions continue to exist or even grow. The population of the backward region will look upon the neglect of the area and the lack of central intervention as grievances of their nationality, tribe, of religion, as an obvious proof of the hostile feelings and endeavours of the government.

The border areas between different countries play a special role. Under normal or favourable conditions of foreign policy it is expedient to consult with the neighbouring state or states in order to co-ordinate the economic development of the border areas. Co-operation may save considerable development resources and improve the supply of the population in both countries. The exchange of commodities and services between the border areas should always be treated as a special chapter in foreign trade.

This rational co-operation—which would be useful in political respect, too—often comes up against serious obstacles. Some of the most characteristic obstacles are these:

- a) possible differences between the two states in questions which, by the nature of things, are always sharper in border areas,
- b) the traditional (national, tribal, religious) differences between the populations of the adjacent regions,
- c) the difficulties deriving from the difference between the monetary, price, taxation and customs policies of the two countries.

We shall now discuss the problems of establishing local, regional organs.

### The Structure of the Local Organs of State Administration

Certain conflicts must necessarily develop between the central and the local organizations of the state. This is unavoidable even in countries which are homogeneous nationally and with respect to the standard of living. In the presence of national, tribal and religious differences the conflicts are obviously stronger. In this sense a region often displays a common attitude towards the central government, but this attitude is not homogeneous since the power relations and conflicts in the national policy never fail to affect the regions. The region is linked with many ties to the national policy, among other things, through the local headquarters of the leading political party or other national organizations and through the members of the parliament touring their constituencies.

The local leader of the political party represents the interests and the opinion of the region before the central organs, on the one hand, and obtains instructions from the centre, on the other. If he adopts a provincial or chauvinistic attitude in representing the local interests he loses the confidence of the centre, if again, he is but the spokesman of the latter, he must lose ground at home. It follows that a good local party leader must adopt in a certain sense a mediating attitude even at the risk of eliciting, from time to time, the resentment of both parties. First of all,

he will find himself opposed in local policy to the extremists and to the separationists. But he must not remain alone, nor is it sufficient if he is supported only by the local authorities and representatives: he must recruit followers, obviously, among persons of authority and weight, the leaders of respected institutions. Among the local leaders depending on the centre the administrative chief will be the strongest representative of the efforts of the government, while the members of parliament, under normal circumstances, will stand nearer the population than to the administration.

It is, however, of extreme importance that the local party leaders reveal the real situation in their region with "cruel" objectivity. A local leader trying to find out what his superiors want him to say causes much damage to his country. With false reports he may perhaps find favour for some time, but a misinformed political leadership is liable to commit serious mistakes, sooner or later. In the case of rapidly changing social and political conditions the government cannot afford to commit serious mistakes all too often without the risk of catastrophic consequences.

The greatest problem is not the conflict between the central state apparatus and the local organs but the conflict developing between the central government and the population of the region.

The confidence of the population of the region in the local organs is enhanced if genuinely local forces are represented in it. Such an apparatus will be more able not only to carry out the intentions of the government but also to explain and have them adopted by persuasion. That is why care should be taken that a large part of the highly qualified young intellectual workers return to their own regions. People trust much better the leaders they have known for long and also these find themselves more at ease in the place of their provenance than elsewhere.

Only an apparatus enjoying the confidence of the population of the region, well acquainted with local customs, traditions and mentality, becomes capable of evolving spontaneous activity in the region. And without this there is no real development. Hence the yardstick for assessing the capacities of the local organs should be not so much their own zeal in carrying out the central instructions—which may well be formal—but rather the extent and efficiency at which they are able to stimulate spontaneous activities. A local apparatus confined to the carrying out of higher instructions is not really aware of its tasks. Obviously, the central organs cannot realize many of the possibilities offered in local situations. It seems expedient to grant certain central benefits (e.g. credits, investments, etc.) as a function of the efficiency of local spontaneous activity.

### Large-scale National Enterprises in One Region

We have so far spoken of economic tasks which the local organs are able to carry out or initiate in a satisfactory manner. But we know of large-scale national undertakings which are built up in one single region, but have a decisive impact

on the future development of the entire national economy. We have in mind such enormous undertakings as, for instance, the Aswan dam on the Nile, the Volta River Project and others.

These projects are usually of such a colossal scale that the financial, technological and organizational problems of their implementation require the co-operation of several states or whole continents, and possibly of international organizations. Obviously when such a huge project materializes, it radically changes the life of the given region. In the case of Aswan, for instance, the population that stagnated for thousands of years has recently grown four-fold although the plants of chemical and food industries have not yet been put into operation.

Obviously, such a huge establishment (as irrigation and electric energy development at Aswan) becomes the catalyzer of the economic development of the whole region, since it involves a whole set of associated projects like a chain reaction. The existing factories of food industry must be enlarged, new ones established, in order to supply the builders and the rapidly growing population. The building-material industry must be developed since otherwise all materials must be transported from a distance. The adequate operation of the agricultural plants in the irrigated area must be prepared and experimental production started. The geological exploration of the territory must be begun, the utilization of the artificial water basins created during construction should be prepared. The training and education of the local population is to be started to ensure skilled manpower for the plants to be opened. All problems of communal services, trade, small-scale industry, local administration, education, health and communal life in general must be assessed and solved.

The local organs, in the usual sense of the term, cannot be entrusted with the planning and organization of such complex tasks. The question is whether the implementation can be entrusted to some specialized ministry (the most competent one, of course). This solution would also involve considerable drawbacks: ministries are likely to be situated at some distance from the construction site, are not and cannot be well acquainted with all problems that arise on the spot. And also the specialized ministries are in general incapable of comprehensive thinking, let alone integrated action.

The difficulty could still be ironed out since some department or permanent delegation of the ministry could be transferred to the site. The second difficulty is insurmountable since when a ministry becomes capable of comprehensive thinking and integrated action, it ceases to be a specialized ministry.

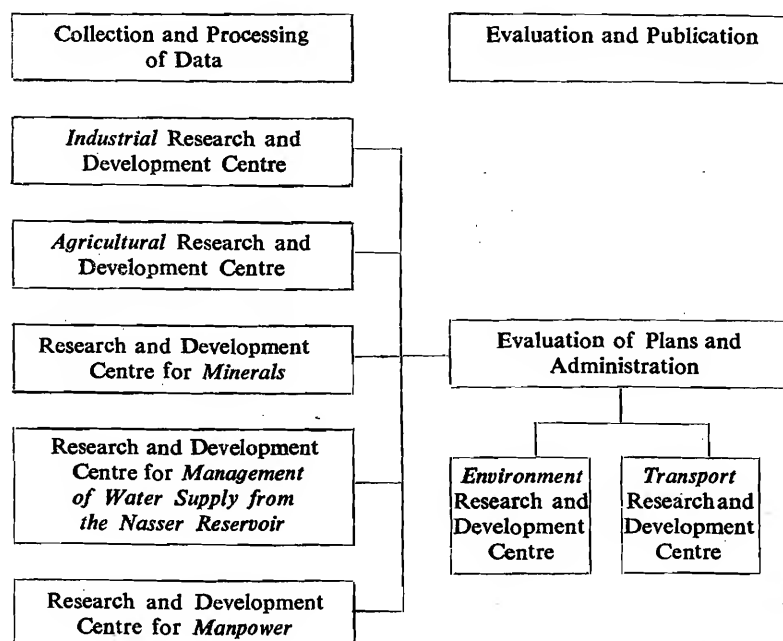
It was under such considerations that in 1963, by concentrating local, national and foreign forces, a regional organ of government was created at Aswan which was entrusted to plan the economic development of the area (up to the Sudanese border) affected by the high dam.<sup>1</sup> This regional organ established contacts with the specialized ministries, these contacts were given an institutional form called

<sup>1</sup> A. R. Abdel Meguid: *Fulfilling the Promise of the High Dam, Regional Planning of Aswan*. Cairo 1966.

the "Strategy Boards" consisting of two representatives of the regional organ and two from the specialized ministry. The regional organ (a fortunate hybrid of an office and a research institute) established direct contacts also with the traditional organs of local administration.

The Aswan regional planning and control organ co-operates with the Ministry of Planning and with a body consisting of the undersecretaries of the ministries concerned with development.

The regional organ consists of sections (called centres) devoted to various development tasks. The competent centres collate and co-ordinate the tasks with the plan, on the one hand, and with the activities of the ministries concerned, on the other. The attached Table, taken from Abdel Meguid's publication, shows the various centres participating in the compilation and discussion of the different elements of the project.



It is quite clear that, as soon as the construction is carried out, there will be no need of such a vast regional organization with a large number (200) of employees. Yet during the years of construction the aspect of the region changes, the stagnation is replaced by a vivid and animated economic activity, the purchasing power rises, new industrial branches, educational and health institutions are established, that is a completely new region takes the place of the old. It may be presumed that a large part of the highly qualified and much experienced staff who have taken part in the planning and the execution of the project will settle down here. This is

obvious since creative people are emotionally attached to their creations, and these people will have indeed written their names indelibly in the new history of this ancient landscape.

When the construction is finished at least two of the regional organizations will become superfluous, namely, those dealing with investment and constructions. But the investments of today create the foundations of the economic activities of tomorrow. Hence the new and the old organizations will fuse, and the people who have taken a share in the building up of the new region will be surrounded by growing respect and authority.

## The Growth Crisis, Its Character and Impact on Political Power Relations

We have often said in this book that in the course of economic growth the targets can only be approached but not attained. This statement naturally relies on a wider and more complex notion of targets. Targets may be interpreted also in a narrower sense, as definite quantities of physically measurable performance (e.g., the building of 10,000 flats, of a plant capable of producing 100,000 tons of steel per annum, etc.). Production and investment targets defined in physical units can be obviously achieved and even overfulfilled. If however, a target is interpreted in a wider sense, relying on its role played or to be played in the economic circulation, then the intention is to achieve this production target at a given date and with rational efficiency, in a manner to satisfy certain needs and demands with contemporary techniques and influence thereby a set of other processes in the national economy in a favourable manner.

For example, if the intention is to produce 100,000 tons of rolled steel, and for this purpose a considerable part of the scarce material resources of the country is to be concentrated, then we must realize the following:

a) The production capacity must be put into operation at a definite date, when the sale of products can begin, and the sectors purchasing them must accordingly establish their own plans of manufacturing and selling finished goods. If the date of investment is postponed for some reason or other and the projected and calculated capacity becomes active one year later, then either the plans of the purchasers must be changed or rolled steel will have to be imported through a year, whereby the tensions in the balance of payments will increase.

b) If the production costs turn out to be substantially higher than anticipated, this means that the efficiency of the whole investment is lower than expected; moreover, the products would have to be sold at higher prices than planned and the price increase would extend over all other industries using them. If the intention is to check the propagation of the price rise, subventions or tax reductions must be granted to the enterprise, although this is a further burden on the overdrawn budget.

c) If the quality of the product is inferior to what has been expected, it becomes unsuitable for certain purposes or deteriorates the quality of the finished goods manufactured from it.

d) If the above negative tendencies have asserted themselves, it means that the operation of the steel mill has an adverse effect on the other economic sectors by

involving an inefficient utilization of capital goods, an increase in imports, a rise in the prices and the deterioration of quality. These negative tendencies may be liquidated after a few years, yet the unfavourable input-output ratio of the first years causes strong tensions in the otherwise overstrained national economy.

We have said before that the development targets of certain production processes become resources in the subsequent processes. Hence the inference that can be drawn from the above example may be formulated in the following manner: more has been spent for the manufacture of 100,000 tons of rolled steel than what it is worth when used in the subsequent processes as a resource of development.

This example, let us admit, is a very simple and clear-cut phenomenon symptom of economic growth; and also the consequences of an insufficiently achieved production target (taken in the wider sense) have been analysed within a narrow sphere.

The coherent process, pregnant with interdependences, of economic growth is more complicated than shown in the above example, whence also the failure of attaining important targets has far-reaching consequences.

### Why Can Economic Targets not Be Fully Achieved?

Why can the economic targets not be fully achieved, what factors are responsible for the differences between the results attained and the projected targets?

The first thing to be kept in mind is that economic control cannot change the past and the present but only the future. Yet even this future, unlike laboratory experiments, cannot be shaped under artificial conditions since it depends on human decisions and actions to be made under the impact of conditions developing later. This future consists of many unknown factors, which the planners of the national economy can in principle not be aware of (as, for instance, a substantial part of the future changes in world policy and world economy). Nor is any decision relating to the future ever perfect since, as has been said, it is mostly a compromise between diverging interests and the conceptions of different political and economic power factors. These compromises influence also implementation; and the quality of the latter is anyhow depending, among other things, on the faculties and capacities of the state apparatus and of the local organs.

In addition to this, the following factors should also be considered:

- a) a set of unpredictable international factors,
- b) the fact that agriculture—the largest sector in the developing countries—is heavily exposed to weather conditions so that very different quantities can be produced with the same input of live and dead labour,
- c) owing to unpredictable factors and partly to mistakes committed during execution, the behaviour of the various economic sectors may essentially differ from what has been presupposed,
- d) technological and scientific changes in the advanced countries may require the revision of certain economic targets.



The above statements only point out the causes of the differences but do not indicate their consequences. The waves of consequences sweep through the whole national economy and their effects tend to accumulate, changing thereby the rate of development, the quantitative relationships and equilibrium conditions of the processes planned originally. Indeed, in exceptionally serious cases, they may even revert the trends planned.

The question may then arise whether it is at all worth while setting plan targets if these, in the wider sense of the term, cannot be attained, only approached. Let us realize in this respect that

- the trends to be expected and the deliberate endeavours to be made during the growth process must be determined because these represent the resultants of the economic processes,
- the economic resources have to be arranged and the methods of economic control elaborated in compliance with the targets as action hypotheses, even if we know that these targets may have to be modified during the process itself.

From this qualification of the targets it follows that the planning of rational economic actions cannot do without hypotheses. The co-ordinated targets of economic growth are, in fact the hypotheses of rational economic actions, and this means that they must never be looked upon as absolute values.

The interpretation of the targets as hypotheses of rational economic actions, however, does not change the fact that the available economic resources—or development energies, as they are usually referred to—have been allocated in a concrete manner according to the hypotheses. But this statement, too, needs more precision. Namely, when the medium-range economic conception is launched, two types of resources are distributed:

- those available at the time of the launching of the plan,
- those supposed to be produced in the course of economic growth.

### The Development Targets Are to Be Attained under Conditions of Equilibrium

The latter category, that of the resources which will materialize during the plan period, will become available only if a definite set of targets indicated in the plan decision are attained under certain equilibrium conditions. If some of these targets remain unachieved, then part of the expected resources will fall out and cannot be subject to distribution either in kind or in value. The dialectic unity of aims and means, i.e. the transformation of aims into means and of means into aims, as has been pointed out before, also involves certain equilibrium conditions. In their simplest form, these conditions reveal the amount of means used to attain the aim, in other words, the extent of economic efficiency. But, in a wider sense it is obvious that the aggregate of resources available—according to the hypothesis and also in reality—for the achievement of the aggregate of plan targets is always limited.

If, in order to attain certain targets or a system of coherent targets, a larger amount of input is used than originally planned, the equilibrium between the aims and means becomes upset, resulting in economic disturbances. The equilibrium between aims and means may be upset in three different ways in macro-economy:

- a) in order to attain the targets, more input is used than permitted by the plan, i.e., some means will be withdrawn from other targets,
- b) the available amount of means proves insufficient to attain the target, which then remains unachieved,
- c) formally the targets are achieved but, in their capacity as means of further economic development, they fail to exert the expected inductive effects on other fields.

### Disequilibrium—Economic Emergency

It would be a mistake to say that the entire process of economic growth can and must be achieved under perfect equilibrium conditions. In the developing countries a certain lack of equilibrium is contained in the economic conception itself, on account of the scarcity of the available means and funds. We shall refer to this type of disequilibrium as the "maximum tolerable imbalance". When however, a disequilibrium arising in the normal economic circulation is superimposed on this "maximum tolerable imbalance", the situation may become intolerable.

In this case, it is not expedient to risk an overtension in the belief that the real "degree of tolerance" of the national economy and of the population is somewhat greater than what is expressed by the "maximum tolerable imbalance". Instead, we must bridge the gaps by a quick regrouping of available means and resources. In fact, a new situation arises, one of emergency, in which the primary aim is no longer the full achievement of the original economic targets but the liquidation of the emergency. If this is not done, or if we are late to recognize the emergency situation, the troubles will accumulate and may result in a serious crisis.

### The Growth Crisis

In the presence of a menacing crisis it would be far too simple to say that it is sufficient to win some breathing space, after which progress can be continued towards the original aims. Economic growth is no hill-climbing where the achievement depends on a relatively small number of factors, progress can be interrupted for a short rest and continued with renewed forces towards an aim which remains stable and never shifts.

In a national economy thousands and tens of thousands of interdependent processes must be considered and, once the equilibrium between aims and means is upset, we can be prepared for a whole set of chain reactions.

When analysing the equilibrium troubles, the following factors—to stress only the decisive ones—must be taken into account.

a) in a direct or indirect form, disequilibrium extends over all fields of economic life,

b) under conditions of disequilibrium the sectors of a multisector economy which have a complete or partial freedom of movement will start acting according to their own motives, that is to their supposed and spontaneous expectations rather than to follow the laws of movement which prevail when their economic relations are normal,

c) abroad, confidence in the economic development of the country wavers, the expected or promised credits fail to turn up, or at least their conditions are made more severe and import becomes more difficult,

d) the internal and external enemies of the regime try to make the best of the economic troubles.

The disequilibrium between aims and means can, obviously, be eliminated theoretically either by providing new means—for instance new credits in foreign-currency helping to solve the emergency situation (though that does not seem likely, on account of the crisis of confidence just mentioned), or else by a radical modification of the development targets, i.e., by reducing the rate of growth. Namely, in the absence of new resources, a disturbed equilibrium can only be restored on a lower level.

We wish to give an energetic emphasis to the latter statement (to be proved later in greater detail) because politicians often fail to assess the real factors responsible for the grave situation. Then, instead of reducing radically the rate of development, they are inclined to choose a device very appropriately termed in the German language "*Flucht nach Vorne*", i.e. "fleeing towards the enemy". This means, in the present context, to let the overtensions become even more strained rather than to mitigate them, and to declare that they result from insufficient development, hence can only be cured by stepping up the growth rate, that is, by demanding "temporarily" even more sacrifices from the population. Such an economic policy is bound to collapse within a relatively short time and the resulting situation will be necessarily much worse than what it was when the first symptoms of the crisis made their appearance.

The type of emergency situation which arises from the disproportion of aims and means of economic growth will be referred to as growth crisis.

The growth crisis, this sudden halt characteristic of the economic growth of the developing countries, is radically different from the economic crises or "recessions" more or less frequently recurring in the advanced capitalist countries. Simplifying the well known crisis symptoms of the advanced capitalist economies, we reach the conclusion that—for reasons we do not wish to expound here—demand slackens in the economic circulation or, in other words, production capacities grow more rapidly than the purchasing power. Hence the fundamental problem of how to engage more purchasing power in the economic circulation. Serving this purpose are, among other things, such methods as the redistribution of the national income

through the state budget, the strengthening of state intervention, changes in the credit and monetary policy, the systems of consumer credits and unemployment, benefits, etc.

In an advanced capitalist economy, too, it may become necessary to reduce production or to put a strong brake on its growth, but there production may again acquire an impetus after the re-animation of the demand.

If we try similarly to reduce the essence of the growth crises in the developing countries to the most fundamental factor (although such crises may manifest themselves in various forms), we come to the conclusion that the cause of the crises is the lack of supply. This statement, obviously, requires a detailed explanation and motivation.

On discussing the problems of economic growth in detail we have often stressed that there is no reason in increasing production or in making investments unless a market i.e. an effective demand is created for the incremental production. In the case of agricultural products the market does, indeed, exist in the sense that in almost every developing country the domestic demand for food is already higher than the present supply.

As for the industrial articles of consumption, the market situation is less clear-cut. The potentialities of extension are huge if we compare the actual per capita consumption in the developing countries with that of the more advanced ones. At present, only a fragment of this potential demand is effective, that is, backed by purchasing power. The increase of the latter depends partly (in general, chiefly) on the development of agricultural commodity production, partly on the growing wages of people employed in the existing industries and in construction (including investments in industry, agriculture and infrastructure), and partly on the growing payrolls of the state administration, defense, education, etc. Finally, the market, that is, effective demand for investment goods is extremely restricted in the absence of adequate accumulation. In many countries, indeed, the only source of accumulation is the state budget.

It will be clear from the above that here the development trends of demand and supply which should be in equilibrium are highly interdependent since the conditions of increasing effective demand are created exactly in the process of increasing supply. Employment and wages are both determining supply (since in the beginning of economic growth, production and investment activities must necessarily be labour-intensive) and the amount and composition of demand.

Under such conditions, the lack of supply we have designated as the essential cause of the growth crisis results from the fact that, in the three main categories of commodities, the rates at which supply and demand are able to grow never coincide. It is in agriculture that effective demand grows fastest whereas the possible growth rate of supply is slowest, because agriculture (or at least its parts producing for the domestic market) relies mainly or wholly on traditional techniques. The supply of industrial consumer goods comes partly from the traditional (handicraft, etc.), partly from the modern sectors and partly from imports. Thus, its aggregate can be increased somewhat or even considerably faster

than can the supply of food; whereas the effective demand for these goods can rise much slower than that of food, chiefly because of its being so dependent on agricultural incomes. Finally, the supply of such investment goods as are not (and for some time cannot be) produced at home could be increased at almost any rate, the question being only how to pay for them (exports or foreign credits) while the rest of investment inputs, being highly labour-intensive, could be also increased at a relatively rapid rate, relying on the present surpluses of manpower. On the other hand, the possible growth of effective demand for investment goods, and investments as a whole, is the slowest of all because, apart from foreign credits and the scarce budget means, it has to rely on such accumulation as becomes possible only after economic growth has begun.

It follows that when analysing the causes of growth crises, particular attention should be paid to the sectors which, on account of their backwardness, of lack of capital, of traditional mentality etc., are the least likely to increase their supply at a rate the growth of effective demand would require. These are, in the main, traditional agriculture, handicraft and small-scale industries. In their case, two fundamental problems arise:

a) Is the given sector able to increase its output at a rate necessitated by the growth of effective demand induced by the development of other productive sectors, investment and government spending, from the investment side?

b) Is it able to create the development energies required for the expansion of its own production?

By engaging new manpower in small-scale industry and handicraft (provided the necessary raw material is available) the production can generally be extended considerably. And manpower, as is known, is available in abundance. Yet it remains to be seen whether the inherited skill, training and techniques of handicrafts are or are not in harmony with the demand actually prevailing on the market of consumer goods. In this respect we can rely on the elasticity of handicrafts; this sector soon adapts itself to the demand, especially if it is well organized.

The situation is different in agriculture. Where arable land is scarce and the number of agricultural workers is high, added manpower will not result in greater output if the farming methods remain unchanged. In order to change them, investments are needed. These, however, essentially differ in their nature and purpose from the kind of agricultural investments made in the advanced countries where their aim is to release manpower rather than to increase production. In contrast, the agriculture of most developing countries requires such investment as would permit the available manpower to produce more (per hectare and, if possible, also per worker) than it does at present. And in some countries where land is particularly scarce and manpower particularly abundant, the ideal investment would be the type that would permit even increasing the manpower/hectare ratio in a way to hectare yields to rise and the output per worker at least to remain the same as before. Typical examples of this are the investments for irrigation. When other conditions remain unchanged, irrigated and properly fertilized land requires much more manpower per hectare than it does otherwise;

that is because of the greater mass of plants to be tended and harvested, of increased requirements of weeding, sometimes also of the possibilities to raise two or three crops annually on the same land instead of one, etc.

Yet investment is not the only factor increasing agricultural production. The application of fertilizers, protective chemicals, quality seed and the thousand ways of improving traditional farming methods require no investments in the strict sense of the word although, from the angle of the government, their propagation needs considerable spending, only a fragment of which can be expected to return directly to the budget (e.g., fertilizers, seed etc. distributed on a credit basis). On the other hand, sizable government investments in road construction, the purchase of adequate means of transport, warehouses, etc. are absolutely necessary in an attempt at extending and commercializing agricultural production.

In an agriculture where the traditional sector has not even adopted the basic principles of rational economic actions, the introduction of new farming methods and commercial spirit requires, in addition to the material resources, also considerable time. Thus it may be presumed that for some time, agriculture will not be able to satisfy the demand for food induced by contemporary economic activities. Assuming the optimum case, i.e. when economic growth is comparatively rapid, the import of the staple foodstuffs will unavoidably increase for a certain time.

As can be seen, a large number of factors will have to be taken into account which in the course of the growth process are able to upset the planned equilibrium of aims and means. This is the case when

- a) the investments are accomplished slower than planned or require more inputs, whence imports will rise higher than scheduled,
- b) some of the investments fail fully to exert the hoped inductive effects, whence they induce less energy than scheduled,
- c) agriculture is at least for a time, unable to satisfy the increased demand resulting from the rapid growth of the purchasing power and of the population,
- d) the increase of the imports consumes the currency reserves and accelerates the growth of foreign debts,
- e) the budget expenditures are likely to grow more rapidly than incomes.

The disproportionality of inputs made and the economic results achieved, the shortages in certain goods on the consumers' market, the increasing indebtedness to foreign countries, the overstraining of the state budget start a dangerous inflationary process.

As a consequence of increased indebtedness, imports can be continued only under worsening conditions which may lead to extremely grave consequences in an import-sensitive economy. If the dimensions and the present efficiency of the economic activity are maintained, the rate of inflation and of indebtedness will obviously rise. I wish to make it quite clear that this inflation will not be of the regulated and controllable type which is often said to be advantageous for economic growth, but a devastating one, benefiting but a thin layer of speculators and bringing to harm very many. As an example let us refer to Japan where the acceleration of economic growth elicited a very serious growth crisis which, in the

1880's, turned into a tremendous inflation. (I cannot refrain from an instructive reference to the cock-sure declarations of several western economists of that time who, exactly under the impression of this inflation, said that, as her economic troubles convincingly prove, Japan would never be able to adopt and apply the intricate economic system and institutions of the advanced world.)

### Restoring Equilibrium in a Growth Crisis

We shall now try to find an answer to the questions as to how the economic equilibrium can be restored—on a lower level—when the growth crisis begins or develops.

First of all I should like to point out that the first symptoms of the growth crisis can be recognized as early as some two to three years before its full outbreak. In other words, economic experts of sufficient knowledge and free from bias are capable of a wide analysis of the consequences of the first phenomena indicative of a crisis. At the outset these phenomena are expressed in such symptoms as the protracted implementation of investments, shortages on the food market, the rise of imports and the lagging of budget incomes behind the plan. Parallel to these negative symptoms, investment, production and employment are still expanding.

At this stage a relative equilibrium, i.e. the tolerable maximum can be restored by an adequate reduction of investments, chiefly of those of non-productive character (in most cases this should also involve a reduction of imports), and by a heavy-cut in the state budget expenditure (with as much consideration for development spendings as possible). Yet, as the general atmosphere is still full of optimism at the time, it is not an easy task to have such a conception adopted. The statesmen are still confident that the negative symptoms mentioned above will be eliminated by the growth process itself. And even when the leading statesmen endorse and adopt the assessment of symptoms presented by the economic experts, this is by far not identical with a definite resolution to act.

Namely, statesmen are responsible not only for acting with the maximum of foresight but also for the extent to which their decisions are understood by their party, the higher civil servants and the masses. No doubt there is a conflict between these requirements.

Only a statesman having an absolute authority and possessing wide mass support can afford to make decisions that, for the time being, cannot yet be well understood by the political supporters of the state power and are even in contradiction with their adopted opinion.

It is also possible that the statesman in question has formerly played a decisive part in the formation of the opinion which his present decision contradicts. This makes his position still more difficult. In this case his decision will not be looked upon merely as a novelty but as a kind of *volte-face*. It is rather difficult to explain to the masses that exactly the strategic targets of development of the

original conception make it unavoidable temporarily to change the tactical attitude prescribed by it. It is therefore no wonder if our statesman, though convinced by the experts of the necessity to act, would still delay action even if he knows that it will have to be taken at some later time and under much less favourable conditions. Namely, he is inclined to believe that later on, when the negative symptoms become more dramatic, the leading layers and the masses will show more understanding for the necessary measures.

In order to liquidate the growth crisis, whether the actions are undertaken in time or with delay, i.e. at a time when the crisis phenomena have more fully asserted themselves, the starting point should be that in the last analysis the crisis is due to insufficient supply; in other words, the problems of a developing economy must be solved by raising production and national income instead of curbing demand. Nevertheless, it is quite evident that, amidst a severe growth crisis the equilibrium of supply and demand cannot be restored from the side of supply. This namely would require an increase of investments, imports and government spendings, and such steps would primarily increase demand, long before supply would begin to rise. The result would be the growth of foreign debts and an accelerated inflation.

This clearly means that in this special case, despite the general principle declared above, the equilibrium can—temporarily—be restored only from the side of demand. But one must never forget that, in the long run, the reduction of demand cannot solve the problem in an economy where there is a shortage in supply and needs are growing. It follows that demand must be curbed, or its growth reduced, by such economic measures as do not jeopardize the subsequent increase of the supply.

It is evident, for example, that the investments must be reduced in order to restore the equilibrium. But it is also self-evident that investments of a directly productive character which are under construction would have to be finished and put into operation if this contributes more to the increase of supply than to that of demand. Non-productive investments must be reduced although, no doubt, their postponement will, at some later time, also have unfavourable effects on production. Still, in this situation, the non-productive investments are the first thing to be reduced. It is, on the other hand, of particular importance to finish investments in process which serve the improvement of the industries of building materials and construction since the low level of investment efficiency is closely linked with the poor equipment and insufficient capacities of these two branches.

It is absolutely necessary to continue to make efforts (including the investment and credit policy) for raising agricultural production.

One must not forget, namely, that the rapid growth of the population and its insufficient nourishment level are facts which will continue to exist even if the growth of purchasing power is temporarily curbed. Moreover, the neglect of agricultural investments today may involve new imbalances tomorrow, i.e. after, and in spite of, the revival of the forces of the economy.



The branches capable of increasing their production without investments (small-scale industry, artisans, etc.) must be mobilized for saving import and increasing export.

Imports must be cut down intensively, or else indebtedness continues to grow. Certainly, the imports of some very carefully selected goods must be exempted, on account of their indispensability for home production or for investment projects the implementation of which must be continued. Imports of consumer and luxury goods, (e.g. cars, etc.), should be reduced to the minimum as well as those serving state purposes. Great efforts should be made to increase exports, but only up to an extent that does not involve the danger of a fall in the prices.

Finally, to be reduced are the state expenditures, including the development and representation costs of the state organs and institutions. Unfortunately, it often becomes necessary also to reduce the educational and health programmes although they represent the foundations of the future.

The reduction of the purchasing power tends to slow down the rate of inflation.

But these various dispositions cannot be successful unless the tensions of the trade balance can be mitigated. However, the internal forces of the economy are not sufficient for reducing this tension, even if energetic measures are taken to reduce imports and increase exports. It should be kept in mind that foreign trade will be for a long time the neuralgic point of the developing economies. Every type of economic crisis or decline will most intensively be reflected in foreign trade. The restoration of equilibrium requires the prolongation of the terms of payments (a moratorium in the worst case), on the one hand, and foreign-trade credits granted by international banking institutions, on the other.

If these organizations fail to consider the specific growth problems of the developing countries, the granting of these credits may have disastrous consequences. Namely, the restoration of equilibrium is possible also by methods relying on financial rather than economic considerations, but such methods are likely to throw difficulties in the way of solving the fundamental problem, the increase of production. It is also well known that the interest rate of the international banking organizations is still pretty high (around 5 per cent).

### Specific Symptoms of the Growth Crisis

In analysing and evaluating the symptoms of the growth crisis it should be remembered that in the economy of the developing countries no such spontaneous forces are acting as would permit a later animation of the economy.

The growth crisis in the developing countries differs also in this respect from the economic crisis and recessions in the advanced capitalist countries. Hence the dispositions and factors meant to enliven the economy must be included into the coherent system of actions to be undertaken for the restoration of the equilibrium.

These measures and dispositions are accompanied by heavy problems even in the case of serious circumspection. As a consequence of the anti-inflationary measures

aimed at curbing demand, mainly through cuts in the investments and in the state expenditures, employment tends to decrease. This results in a serious political, social, and also economic problem since we cannot exploit the only abundant factor of growth, the abundance of manpower. The activity of the state offices and research institutions (e.g. in agriculture) necessary for a better control of economic life must be restricted or cannot even be started, on account of the cuts in the budget. Also the educational and health programmes must be subject to restrictions which will hit back later.

Nevertheless it is evident that in the given situation such measures are inevitable and any delay results in the deterioration of the situation because, owing to the increasing imbalance, the economic circuit is repeated under ever worsening conditions.

It logically follows that all efforts are to be concentrated to prevent the development and particularly the full evolution of the growth crisis. Every system of economic direction—including the centrally controlled economy—has its “losses by friction” associated with its characteristic mistakes and shortcomings. (They become characteristic by the frequency of their occurrence.) Naturally, the losses of friction in a centrally controlled economy are never as high as those of capitalism have been during the last hundred years.

Some of the characteristic mistakes are: the exaggerated optimism in assessing the expected trends in economic growth, the inclination to underestimate the uncertainty factors, the tendency of voluntarism in the decisions and the uncertainty in the actions when the first troubles make their appearance. These mistakes are understandable in many respects since it is not easy to assess all political and social consequences of an economic decision, and the trends and intensity of the processes that will be induced by a given measure can be anticipated very differently. Most decisions consist in the choice of one of several alternatives. The negative consequences and developments of the chosen variant become conspicuous, but it is impossible to prove unambiguously that another variant would have made a better choice. Nevertheless, endeavours should be made to avoid too optimistic plan targets, too heavy risks and unreasonably high tensions when framing the economic conception and operative economic policy.

### “Feedback” from One Set of Actions into Another

At any rate it seems more correct to build the economic conception on a more optimistic and on a more pessimistic set of hypotheses. The first variant can prescribe such actions as will be possible if the assumptions prove correct, the second contains actions that can and must be undertaken even under the worst conditions. At the outset, the first variant should be relied on and only when negative symptoms show up should we recur to the second. Moreover, a system of “feedback”, i.e. a coherent series of measures leading from one set of actions into the other with the least losses and jerks, is to be worked out well in advance. An elastic applica-

tion of the feedback system may prevent the imbalances arising during growth from eliciting a crisis. The imbalances may, in certain cases, be of a recurring character (if, for instance, the agricultural production or the export prices are lower than expected or calculated). They do not necessarily assume large dimensions if they are warded off by elastic dispositions. Yet if these recurring and inevitable troubles are superimposed on an existing disequilibrium, and if this is not recognized in time or the dispositions come late, then also minor troubles may cause a crisis.

It is evident from the above that emergency situations frequently occur during economic growth, especially in economies where the development resources are scarce. The first thing to do is to restore the equilibrium. If the measures taken do not prevent the growth of production, and if the continuity of foreign trade can be secured, then a certain change will soon be noticeable in the economic situation: supply will slightly surpass demand. In other words, the rate of economic growth can again be stepped up.

But when liquidating the emergency situation and reaccelerating the growth process we are no longer following the original aims. Namely, the economic processes, correlations and power relations that evolved during emergency situation are now built-in parts of our economy steering towards a new stage of growth. The original aims represented the optimum in relation to the original situation, but under the changed conditions a new optimum, i.e. a new compromise and a new set of actions must be found. Moreover, during the years of emergency technological progress is going on in the world, new phenomena in world economy appear and must be accounted for. Perhaps also the assessments in respect of our national economy have changed. No doubt, the appearance of a growth crisis shakes the confidence of foreigners, yet resoluteness, circumspection and a feeling for reality in overcoming the crisis may, under favourable circumstances, even enhance confidence.

Finally it should not be forgotten that during the crisis also the political power relations and the relation of the sectors to the government usually undergo substantial transformation. We shall later come back to this process of transformation and to its evaluation.

Obviously, the results achieved in the course of implementing the economic conception are not identical with the coherent system of the original targets. In the long run, the results (taken in the broader sense of the word) are equal to the aggregate of the concrete relationships, events and human actions that have materialized during the successive tactical periods.

Circumspect and rational analysis and an elastic execution enable us to deduce the gulf between targets and results.

This conception of economic direction requires a constant combination of consistency and elasticity.

It is a widespread mistake to think that elasticity is necessary only for short periods. It should be realized that the implementation of the economic conception influences the long-range targets through the short-term decisions. No long-range

targets can be separated from the concrete processes, relationships, phenomena and results deriving from our rational activity pursued to attain the aims.

Hence elasticity, meaning a prompt adaptation to the changing situations, constitutes one of the main requirements of economic control. Elasticity is indispensable in all human activities and constitutes a virtue of all vital and reasonable societies and individuals. On the other hand, conceptual rigidity, the lack of mobility and of the capacity to adapt oneself to new circumstances, are the characteristic shortcomings either of senile and conservative or of primitive societies.

### Changes in Political Power Relations during the Growth Crisis

In the course of the growth crisis the political power groups and relations also undergo deep changes affecting both the inner and the outer circles of power. Before the crisis, the conception of an accelerated economic growth that had been embodied in the medium-range plan was supported by the radical elements of the political party, while the more conservative-minded did not believe in the possibility of radical transformation. The progressive elements strengthened their position under the impact of the first results of the plan while the conservatives kept silent in the background or adopted an expectant attitude. Some of the elements opposing the majority's conception may even have been ousted from the party.

As soon as the first unhealthy symptoms appear, the conservative elements revive. They have a large amount of information obtained from friends and relatives among the domestic capitalists, the economic experts and even among the leaders of foreign firms. Hence they perceive the troubles before the statesmen (prejudiced and refusing open exchange of opinions) do so. From this time on the struggles and clashes within the party flare up. The ruling group has more difficulty in having its conceptions carried through because these are openly attacked by the more conservative layers. Yet it would be a fatal mistake to look for the reasons of the difficulties in the conservative wing of the party. The difficulties derive mainly from the deterioration of the economic situation, and the conservative wing of the party only tries to make the best of it.

If the political leadership recognizes the difficulties and evolves a plan to overcome them, the situation can still be saved. The conservatives feel that they had their say and will not look for allies outside the party. They will not endeavour to overthrow the party since they find it possible to put through their will within the party. If in the course of implementation the party cedes certain positions to the more conservative elements and the conception is successfully implemented (in order to prevent the crisis), then the relative unity of action of the party can be maintained.

The situation is worse if the ruling group fails to recognize the real causes of economic trouble. It is well known that the same economic phenomenon can be interpreted in many different ways. The reformers often think that the troubles

are due to the failure of having carried out sufficient reforms whereas the conservatives attribute the difficulties to too many reforms.

What happens in this case is that the ruling group, amidst the growing resistance of the more conservative elements, wants to accelerate growth and takes measures which only increase the disequilibrium, inducing the growth crisis to take a serious turn towards full evolution. If the situation becomes very tense, the conservative wing may seek for allies outside the party. Such are likely to be found in both the inner and outer circles of power.

To counteract this endeavour, the ruling group will be compelled to look for allies elsewhere; this in practice means that the party splits even though its formal unity is maintained. It may occur that the ruling group, on account of its more favourable position, can parry the attacks of the conservatives until the breaking out of the crisis. But when the economic crisis breaks out, a fundamentally new situation arises. The government is compelled to reduce the investments, cut the spendings, restricts imports and to raise (if possible) foreign credits.

The attacks of the conservative opposition thus seem to have been justified. (What the crisis proves is, in fact, not that the opposition was right but that the ruling group was wrong when it was not ready or able to recognize the causes of the difficulties.) In this situation several lines of development are possible:

a) the head of the state and the leader of the party are compelled to ignore some of their followers and collaborators and co-operate with some representatives of the conservative elements (under the leadership of the same person several groups may succeed one another);

b) the conservative wing, supported by external forces (army, police, etc.) overthrows the ruling group,

c) the fight of the progressive and of the conservative forces assumes such acute forms as induce the army to take over.

The possible political developments, too, prove that the full outbreak of the growth crisis (which comes about only if the government has failed to realize the situation in time) can drag the government into extremely serious danger.

The growth crisis does not only change the internal power relations within the party but affects also the position and behaviour of the army and the state apparatus within the inner circle of the power.

### In a Particularly Grave Crisis the Army Has the Key to the Situation

The relative influence of the army obviously grows when there is an inner crisis in the party. Though the army, too, consists of several progressive and conservative elements, in crucial times the armed units, owing to their internal discipline, can create an action unity sooner than any other body. That is why the army has a key position at times of economic and political crises. There are three theoretical alternatives for the exploitation of this key position:

- joining its forces with the conservative elements of the party, the army can overthrow the government,
- the army can strengthen the position of the ruling government which then gains time for taking the necessary economic measures,
- the army shelves the political leaders exhausted by the fight against one another and seizes the power.

Whichever of these variants materializes, the key position of the army is strengthened, and the earlier power relations will not be restored even after the growth crisis is liquidated. In the case of an extremely acute crisis many unpopular and even drastic measures must be taken to restore equilibrium. The political parties relying mainly on the strength of persuasion may not be in a position to act accordingly. It is also evident that a government whose authority has been shaken and whose followers are no longer unanimous in supporting it can only overcome an acute economic crisis with difficulties.

If the army alone seizes power and takes all necessary measures, its regime will not be long-lived since it is associated in the memory of the population with many unpopular measures.

That is why after the crisis is overcome, people deserving the confidence of the masses and of the specialists are needed.

The shelving of people who have taken a share in the fight against the crisis is not quite justified when growth is again accelerating and it is even less justified to neglect the political leaders who have deserved credit for having taken part in the struggle for independence and for originally launching economic growth.

Besides being fair to the leaders worn out during the political and economic struggles, it is even more important to give an equitable treatment to the masses which have undertaken the greatest sacrifices for economic growth. Fairness and equity to the masses as well as the requirements of national political actions make it necessary that the masses themselves elect the leaders at whose call they are ready to take sacrifices. This does not necessarily mean that plebiscites are to be held very often; it nevertheless means, as a minimum, that it is not wise to insist on outworn and unpopular leaders.

### Accelerated Economic Growth as a Sequence of Equilibrium and Disequilibrium Situations

In connection with the power-political crisis following from the economic crisis I wish to mention a problem closely linked with the structure of power. We have so far tried to prove that the growth-crisis is not an incidental phenomenon, not the simple result of mistakes and errors committed in economic policy. In the course of rapid growth, imbalances are unavoidable because the present methods of preparing and taking rational economic action do not make it possible to prevent them completely. Yet a far-sighted leadership can mitigate and limit the troubles and disturbances. If the situation is rendered more acute by unpredictable factors

or by the leaders' delay in action, then these necessary troubles turn into a crisis. It thus follows that the periodic appearance of crisis phenomena must be reckoned with during the process of accelerated economic growth. Marx has often pointed out that history is a permanent alternation of equilibrium and disequilibrium. Relying on this statement of profound truth one could say that accelerated economic growth is the alternation of periods of rapid boom and of major or minor disequilibrium, situations.

The growth crises undermine the prestige and popularity of the political leaders, as we have seen above, and the leaders become worn out and exhausted. The one-person regime has in this respect obvious dangers because

- the economic and political crises undermine the popularity and prestige of the person in possession of power since he does not share power with outstanding politicians or other persons of independent responsibility,
- once his popularity is undermined, the actual possessor of power can keep and protect this position only at the price of growing violence,
- these drastic methods of government prepare the seizure of the power by the armed forces since no political party is able to fulfil its functions under similar conditions.

### Political Superstructure Required by the Periodic Changes in the Economic Situation Particularly during the Growth Crisis

With regard to the future it seems expedient for the actual possessor of power

- to rule through institutions and not in person,
- to nominate a prime minister, i.e. invest other outstanding political personalities with responsible functions and competence.

Thus it becomes possible for the actual leader of the state (the president) of the republic (in general) to open a new course after replacing the politically outworn leaders.

After this short interpolation I wish to point out that the army will only be able to liquidate the economic crisis if it finds support from the side of the economic experts and the state apparatus.

The attitude of the state apparatus, as has been said before, tends to follow, in the main, the line of the political party. Both the progressive and the conservative tendencies represented in the party have their exponents and followers in the administration.

On sensing the initial symptoms of the growth crisis the state apparatus becomes cautious. The civil servants are kept well informed by their political supporters and friends about the conflicts intensifying within the party. No one knows yet what the outcome will be and what shifts to expect in the present power relations. Both the progressive and the conservative forces exhort their followers to remain firm.

The leaders of the state apparatus are required to carry out the decisions adopted under the pressure of the progressive forces while the exponents of the conservative wing threaten them that sometime they will be made responsible for this.

In these circumstances, the state apparatus resorts to the well tested method of bureaucracy, to procrastination, and thereby—even involuntarily—falls in line with the conservative forces which pursue the same policy. In this complicated political situation the civil servants are not ready to undertake responsibility, and a kind of complicity develops between the progressive and the conservative elements of the administration. They say they have no conflicts, can collaborate, and that only the leading politicians make co-operation difficult.

In order to ensure their positions the civil servants re-establish their links with their friends and relatives in the army and economic life, so as to be safe against surprises coming from any part of political life. As has been said before, it is easy for them to delay actions in a country where control is rather loose and inefficient and the pace of administration is very slow. It is therefore difficult to tell whether a case is delayed deliberately or on account of the usual slowness of red tape.

It logically follows from the internal situation of the state apparatus that when heavy struggles are fought and the political power is shaken, bureaucracy cannot be relied on for the consolidation of the situation. The attitude of the bureaucracy becomes positive only after the restoration of the political balance.

In the outer circle of power the trade unions have a peculiar position. The ambitions of their leaders often collide with their activities as representatives of the interests of the workers. They wish to support the progressive forces against the conservative ones, yet at the same time they fight for the immediate interests of the working classes: for higher wages, for the increase of social benefits and for the improvement of the conditions of work. They are intent on increasing the socio-political force and the influence of the working class, i.e. of the organized workers, sometimes even against a progressive government. In many respects the progressive forces of the government rely on them, but try to moderate their requirements that endanger economic equilibrium.

In the periods of relatively rapid growth employment increases, new investments are made, the standard of living rises at least as far as the relative number of those employed in sectors other than in traditional agriculture is increasing. The actions of the trade unions during this period—under a progressive government—are rather of a local significance and are directed against the excesses of the capitalist employers.

The growth crisis changes also the behaviour of the trade unions. Employment diminishes, investments are discontinued, prices soar up and real wages diminish. Under such conditions the unions—in consequence of their functions—may take a strong line against the government. Strikes, demonstrations and similar actions may follow. But all this is an objective help to the conservative forces trying to overthrow the government, although the leaders and the masses of the unions are subjectively against the conservative forces which they have nothing to expect



from. Yet the unions are compelled to such actions lest they risk the confidence of the masses.

In such circumstances the trade unions are faced with the following alternatives:

a) they may stand up against the progressive government to defend the true or alleged interests of their members, but in this case their actions will benefit the conservative forces;

b) they may unite against the conservative forces which are opposed to reforms and to the development of a healthy public spirit; but this may be objectively harmful for the progressive government, making it look even more "leftist" than it is, and this at a time when the progressive forces are already weakened by the economic crisis; indeed, such an attitude may add the last push towards the intervention of the army;

c) they may oppose strictly and definitely the measures adversely affecting the workers, without helping the conservative forces or prompting the intervention of the army. In other words, in an uncertain political situation—strange as it may seem—the trade unions should act in a "depoliticized" manner and in a limited range since they, even with the best of intentions, cannot decide the situation in favour of the progressive forces yet are very likely to promote their fall.

At the outset the representations of the peasants (e.g. the Farmers' Federation) unequivocally and enthusiastically support the programme of economic growth. Later the enthusiasm subsides since the high taxes, the low prices of government purchases, coercive subscriptions to state loans, etc. cause dissatisfaction among the members.

It has by now become evident that the present generation is called upon to make serious sacrifices in favour of a remote future. The conservative elements argue that the government requires unduly high sacrifices and neglects agriculture, and such arguments never remain ineffective. Hence, at the beginning of the growth crisis the representatives of the peasants usually side with the conservative elements. Their attitude is different when either the crisis is preceded by a land reform (that is, there is something to protect against a conservative reaction) or when latifundia are still very strong (that is, there is something to liquidate with the help of progressive forces). In these cases the peasants' federations side rather with the trade unions and other progressive elements.

There is no doubt about the necessity of granting privileges to agriculture in the course of restoring equilibrium. The peasants' federations then feel satisfied and start hoping again for the better.

The shifting to the right of the peasants' federations can be checked or avoided if the dispositions for the development of agriculture and for developing production are initiated by the progressive government.

The other power factors of the outer circle (classes, layers, tribes, nationalities, religions) also play an important role when the crisis appears. The classes are usually represented by political and economic organizations. One of the pillars of the working class is that its position in production is or can be in perfect harmony

with its corporate and political organization. This harmony is not quite perfect in the case of the peasantry which is, as a rule, divided by conflicting interests into layers such as the landless, the tenants and the landowners. This difference exists even when the property is not personal but family property (in the patriarchal sense) or tribal.

The landless peasants may be agricultural workers, working on a contemporary large estate or plantation, or tenants compelled to give half of the produce or more to the landowner for the use of the land. The agricultural workers are mostly organized in trade unions, the tenants as well as the landed farmers each have their own organizations.

The situation is even more complicated for the other participants in the outer circle of power.

As a consequence of the weakening of power, the traditional organizations, the tribes and the religious organizations gain in strength, their activity intensifies and even start fighting for such old rights of theirs had been considered lost long before.

If the progressive forces, at the price of certain concessions, can maintain their power, they cannot do without a certain support of the traditional forces; otherwise a further advance of the conservatives and—within the inner circle of power—an open intervention of the army may be feared.

If there is no intensive shift in power, then the loyal tribal and religious leaders may retain their positions and authority, but in the case of a major shift they are replaced by more bellicose elements.

Whichever government succeeds in restoring equilibrium, it is bound to face so many unpopular tasks that it cannot afford to come into conflict with the population on account of emotional problems. It must therefore realize that in the course of the economic crisis the traditional social forces will reappear and even strengthen to a certain extent.

There are developing countries in which strong and active national minorities live beside the ruling national majority. The international political literature often underestimates the significance of the national minorities living in the developing countries. It is common knowledge that a minority oppressed or felt to be oppressed is inclined to become unaware of the class differences. Hence the given minority presents a united front against the ruling nation and tries to "protect" itself in an organized way. It is problematic whether or not national minorities of this type support the conception of economic growth which, by the nature of things, evidently involves the strengthening of the ruling nation and the central government. The attitude of the minority may become definitely hostile if the investment projects are concentrated in non-minority areas or if the establishments to be created on the territory of the minority are liable to strengthen the supremacy of the ruling nation (for instance, when the leading posts on construction sites or in new plants are filled only by experts belonging to the ruling nation).

In the course of the growth crisis, as we have said, the central power necessarily loses strength and is compelled to take into account the real power relations with

greater circumspection. In such cases the progressive government should try to reach a compromise with the nationalities in question. This, of course, is not an easy task since the government must not make concessions which would turn the ruling national majority against the government. If power weakens beyond a certain limit, the possibility of an uprising is not excluded, especially when the suppressed nationality no longer trusts the governments succeeding one another and invariably made up of the exponents of the ruling nationality; it then loses all hope of its grievances being remedied in a legal way.

If at the very beginning of the growth crisis the given national minority makes an intensive demand for rights or initiates an uprising, then—with the consent and support of the ruling nationality—the army may take over. Evidently, the civil government struggling with the phenomena of the growth crisis and having its authority shaken is no longer capable of successfully fighting the civil war or preventing the state from disintegrating.

### Shifts in the Power Relations of the Economic Sectors

Radical changes mature in the power relations and behaviour of the various economic sectors in the course of the growth crisis. In the period of rapid growth, a certain balance and division of labour between the sectors tends to develop, although competition and the efforts made to oust one another are not discontinued. Most sectors, as we have seen, can establish loyal and friendly relations with the government as the initiator and leader of national economic development. The sectors essentially accepting the growth conception—including the domestic capitalist sector—co-ordinate their activities with the anticipated economic processes. They look upon the plan as the calculation basis for their own economic activity and try to develop the production capacities suitable for satisfying the demand created by the new economic circulation.

The appearance of the first difficulties heavily affect their conceptions and anticipations. It may occur, for instance, that the productive capacities have been developed but the anticipated demand has not been created owing to the delay in some investments and to the shortage in the development resources. Under such conditions some businessmen suffer losses, and this makes the others cautious. In addition to this, the first symptoms of inflation make their appearance, and the exchange rate of the domestic currency tends to fall abroad. Government spending must be reduced, orders for deliveries are cancelled temporarily or definitely, thus causing losses for the entrepreneurs who have developed their productive capacities under the assumption of these purchases.

Under the impact of the events the domestic capitalist sector is shaken, and its loyalty is replaced by restraint. It has the impression that it is not worth while co-operating with the government since it results in losses whereas the liquid capital which speculated on the bankruptcy of the government has made tremendous profits and is still making a lot. The vacuum resulting from the restraint of

the formerly loyal capitalists must then be filled up, at least in respect of the most urgent tasks, by the state-owned sector. Thus, the statistical data will soon reveal a sudden rise in the share of the state-owned sector in certain economic branches or in the solution of certain tasks. But what this rapid advance reflects is not the increased strength of the state-owned sector but the diffidence of some others. The power relations thus created are artificial and do not contribute to the acceleration of economic growth. What the changes show is not what the state is capable of performing but what the others are not inclined to undertake.

The small-scale industrial and handicrafts sector is or may also be affected by losses since the expansion of the internal market and the growth of the purchasing power slow down and also the government purchases become scarce. Certain professions relying on orders connected with the investment activity find this to be reduced in volume. On the other hand, the government's renewed interest in every kind of export is likely to encourage (even in the form of bounties) the export of the goods of the small-scale industries and handicrafts.

The highest profits are pocketed by the speculating liquid capital in foreign hands. The growing inflation and the reduction of the exchange rate of the domestic currency permits a very rapid circulation of the liquid capital.

In the absence of large estates, agriculture is not so tremendously affected by the events. The sectors producing for export may even be developed (for instance, by tax reductions or export bounties). Naturally, it remains a question whether or not it is expedient to raise the production and the export of tropical foodstuffs. The agricultural sector producing for the home market is favourably affected by the change since the government is intent on making efforts to create the material and technological conditions necessary for increasing production and supply. So the contemporary sectors of agriculture are not anxious about their existence since no such change can occur as would reduce demand for agricultural goods.

Traditional agriculture is very slightly affected by economic events and turns outside its own confined world. If there are major towns in a country, immigration of workers to them will not diminish even though economic activities decline. (This, however, aggravates the unemployment and housing problems of these settlements.) If agriculture is favoured, the traditional sector, too, receives stronger support, yet it is not sensitive enough for a rapid reaction.

The situation outlined here also shows that the growth crisis has very different influences on the various sectors. Owing to the regression in the growth rate, some sectors sustain heavy losses or at least are deprived of substantial profits. A thinner layer, having speculated for the crisis, is enriched. In economic and financial life this easily leads to the inference that those backing the government become losers while those speculating against it become rich.

To prevent such an opinion from being formed, the enterprises and businessmen loyal and friendly to the government will have to be given substantial benefits in the new programme of restoring the equilibrium.

## Sectoral Policy in the Period of Efforts Made to Restore Equilibrium

When implementing the programme of creating the conditions for restoring equilibrium and achieving accelerated growth, the following considerations should be taken into account in sectoral policy:

a) The strength of the state sector should be concentrated to improve the activities of the existing plants and enterprises. Efforts should be made to make them produce at lower costs, with more contemporary methods, with higher productivity and by adapting production better to the market. The genuine consolidation of the state sector consists in the fulfilment of these requirements.

b) The domestic capitalists having participated loyally and successfully in the economic programme should be given the opportunity to acquire certain privileges in the course of the implementation of the new programme.

c) Larger possibilities should be granted to the loyal private sector or to such private enterprises as can be rendered loyal, because the participation of the private sector is a token of confidence in the government's policy, an essential factor of consolidation.

d) It is not expedient, for the time being, to oust the private sector from production since its retreat under the given conditions is a sign of mistrust.

e) Capitalist firms should be permitted to settle in the country if they are ready to associate with the state.

f) Wider and more effective help should be given to small-scale industry, handicraft and the traditional sector in agriculture.

g) Substantial funds should be raised in order to confine the activities and profits of the liquid capital within certain limits. The state must not recoil even from occasional administrative measures that promise success in this respect. At the same time this capital should be given the opportunity to re-settle in production.

The application of the above principles, that is, their choice and their order of preference depend on the actual political and economic circumstances. There is perhaps no growth crisis during which all these principles could be applied. In the case of very favourable political conditions, for instance, even nationalization is possible during crisis (e.g. in UAR in 1958 and 1961) without the government incurring catastrophic dangers. Nevertheless, generally speaking, the period of growth crisis requires an indulgent attitude much rather than a severe one.

The above principles of sectoral policy refer, in the first place, to the period of economic rehabilitation. It would, obviously, not be wise to pursue the same sectoral policy in different economic and political circumstances. This, however, does not involve the necessity or the usefulness of sudden turns from time to time. Obviously, turns would not be reasonable from the economic viewpoint within a certain period of time. Corrections, major or minor shifts are naturally indispensable, since the process of economic growth transforms the economic environment of the various sectors and also the operational principles governing the sectors from the inside.

In Part Three we have described the political, social and economic factors affecting the implementation of the general conception of economic policy. The starting point of our analysis was not the static and formal aspect of the power factors. Instead, we have assumed that the operation of the various institutions is determined not exclusively by the functions they were originally entrusted with. The real tasks of institutions as defined by society—or rather on behalf and on the right of the society—cannot be separated either from the functioning of the apparatus of political power or from the concrete conditions affecting the operation of the institutions themselves. Thus, our intention has been to describe the motives directing the activities of the institutions under certain assumed conditions, i.e. amidst a rapid economic growth and then in the growth crisis.

Evidently, the assumed situations cannot be considered as rigid abstractions. The economic growth of the developing countries is understood to represent a long historical period which, as far as we can judge today, will comprise the strenuous work and sacrifices of three to four generations. No one can predict what historical situations will come about during such a long period and no one can anticipate the activities and correlated movements of the leading institutions under political and economic situations whose nature is still hidden from us.

Yet what we can reckon with, is that these two basic economic situations will recur more than once and alternate in the period of the growth process. More exactly, what we have described are not assumed situations but the two most characteristic and alternating situations.

### Can Major or Minor Recessions Be Avoided?

As an objection it may be asked whether it were not possible to make the economic growth of the developing countries more even, that is, to eliminate the elements causing temporary recessions or breaks in growth. Historical experience suggests the answer that economic growth has never succeeded in maintaining a constant and even rise for a really long period.

It is true that socialist planned economy and even the interventionist activities of the governments in the advanced capitalist countries have made economic growth smoother during the past few decades. But as yet we know of no economic growth without periods of slowing down as a result of various factors.

In connection with the expected economic growth of the developing countries—with regard to the smoothness and even rate of growth—the following factors should be taken into account:

a) The macro-economic control of the economy relies on presumed situations, and this cannot be otherwise since the decisions are made in the present and the processes prompted by them will exert their influence in the future. Consequently, only hypothetical assumptions can be made as to how the various facts will affect the given process or be affected by it in the future.

b) The plan distributes and allocates mostly such resources as will be created only in the future, in a hypothetically assumed situation. Hypothetical are, among other things, also the profits by which the sphere of economic activity is meant to be expanded to meet the expected demand.

c) Our present body of knowledge and our methods of acquiring and evaluating information do not even permit assessing the present situation correctly, let alone to make perfect hypotheses.

d) In the course of the economic activities, the conflicts of interests, the mistakes committed in implementation and other factors may result in situations differing from those originally presumed.

e) The economic growth of the developing countries is influenced not only by the events of the world market and world economy but also by the behaviour of the advanced world deriving from motives rational or less rational.

f) The unpredictable factors obviously have a significance—especially in the negative sense—substantially greater in the developing world than in any other economy (a bad agricultural crop, internal political troubles, etc.).

Thus, it seems fairly certain that years of rapid economic growth will necessarily be followed by years of slower growth and of the restoration of equilibrium; and a coincidence of mistakes and unfortunate circumstances may even elicit acute growth crises.

Yet the amplitude of these waves will probably be reduced in the future when more information and experience is available.

### The Impact of the Cyclic Character of Development on Rational Political Action

If we accept this conception of historical evolution of economic growth, the political leaders must also reckon with the cyclic character of development. From what has been said in this chapter it should be fairly evident that by "cyclicality" we do not mean an almost regular alternation of booms and crises (and other phases of the business cycle) as can be observed in the economic history of "classical" capitalism. History does not repeat itself, and the internal and external conditions, institutions, etc. of the developing countries conspicuously differ from those which determined the historic business cycles of the past. There is no basis for assuming any regularity of the lengths of growth periods or growth crises. All we say is that the economic leadership, and the leading statesmen must be prepared for temporary breaks in order to prevent them in time; and this warning does not seem superfluous.

Namely, the activities of the "dynamic" statesmen give the impression that they look upon economic growth as a process going on with undiminished energy and even at an ever accelerating pace. It is part of human nature to believe that, while the problems of the present are extremely complicated, those of the future will be substantially simpler. Of course, we have no reason to believe that this is true:

history has shown that human life can be made better and more beautiful but does not support the assumption that it can be made simpler. Obviously the difficult problems worrying us can be solved, but this does not make the future simpler; only the nature of the complications will change.

If, however, it is recognized that periods of rapid growth and of slowing-down or crisis will alternate also in the future (even though this does not mean any regularity in the length of these periods), a dynamic political leadership must reckon in advance with the possibility of a growth crisis. And if this is so, it is not expedient in a period of economic growth to enhance political tensions on account of personal motives or prejudices.

We do not want to say thereby that the leadership can dispense with radical social and political reforms. The radical statesman must remember two things at a time: to be tolerant towards the masses and to insist on his programme without which he would be doomed to failure.

Besides all this, the political leader must preserve his earlier friends and respect his loyal opponents because he may need their friendship and benevolence in the future. On the other hand he must realize that—as we have pointed out before—an extreme intensification of the contradictions leads to a situation threatening with civil war which, in turn, involves unpredictable international complications.

The political leaders must not manoeuvre themselves into acute situations from which there is no return. But seen from the historical angle, the genuine interests of a country in a growth crisis may demand statesmen who are capable of withdrawing when their persons hinder the restoration of equilibrium.

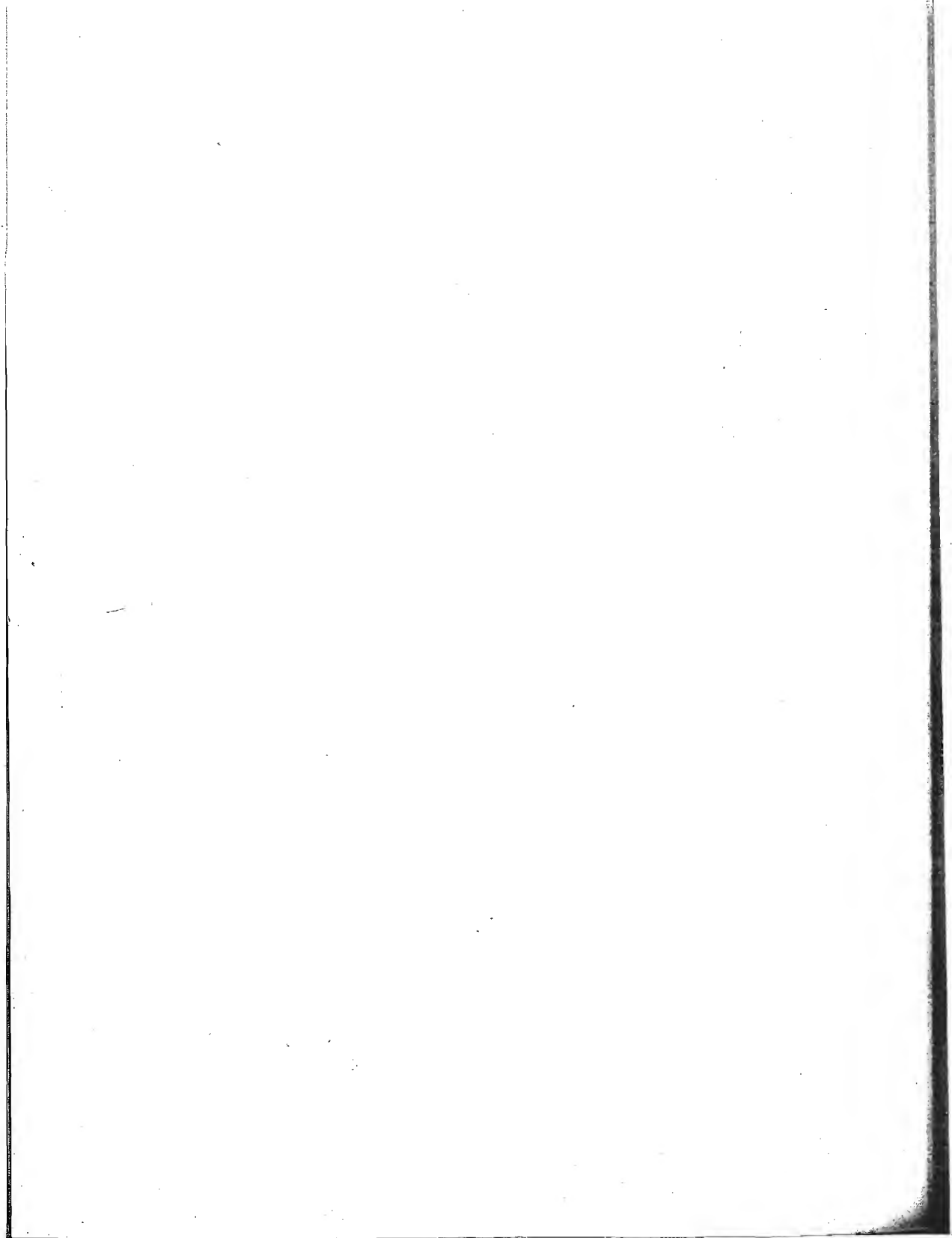
The political institutions should be given an elasticity enabling them not to hamper the necessary maneuvers in difficult times.

If the political leadership fails to act in a manner described above, the troubles will be not reduced but intensified because, in addition to the difficulties deriving from the growth crisis itself, also political repercussions are threatening. And in this case the consideration of power will again precede all other considerations, including the economic ones.



## PART FOUR

# The World-economic Conditions of Growth



## Contradiction in the Distribution of the Population and of the Economic Power Factors—The Role of Foreign Resources in Economic Growth

We have repeatedly pointed out that the economic growth of the developing countries is not an isolated problem but one on whose successful solution depends the future of all mankind and civilization in this century.

Democratic humanism, human equality and the ever renewing ideas of the primeval brotherhood of the peoples demand from us the solution of this problem. It cannot be tolerated any longer that hunger, poverty and diseases should loom over the majority of mankind in an age when science and technology have revealed rich resources for enhancing human welfare.

The norms of rational action also require the solution of this problem. It is evident that the most important political decisions in our age must be rational from the standpoint of all mankind, that is "on the world level". Actions interpreted as rational from a narrow nationalist angle may lead—in their international correlations—to irrationalities, conflicts and even war. The course of history has proved that disproportionalities in the distribution of population and economic resources lead to migrations and wars. In our age even "minor wars" may destroy the whole of human civilisation. There is another danger, that of hunger, misery and frustration assuming the shape of racial conflicts in the consciousness of the poor peoples. This is understandable to a certain extent since the people of most developing countries have had their human dignity violated most by racial discrimination in the past.

The disproportionalities between the population and the economic resources can and must be liquidated by stepping up the rate of economic growth if wars or migrations are to be avoided. If economic growth slows down, stagnates or enters a crisis, hundreds of millions of people may get the impression that the disproportion cannot be resolved without acquiring new territories, and this would inevitably mean conquest and war.

The situation may become particularly dangerous if the neocolonialist powers threaten the independence of the countries living under very difficult conditions.

It is therefore quite clear that conditions and circumstances liable to accelerate the economic growth of the developing countries must be created in order to safeguard the future of mankind as a whole.

The beginning of economic growth, as we have seen, means that the cyclical economic processes, instead of recurring in an unchanged or hardly modified form, are being repeated in an increasing volume as new driving forces enter into them.

History has shown that the transformation of growth into a self-feeding cumulative process requires the concentration of huge material and intellectual energies, presupposes and starts numerous social changes, creating thereby sharp tensions within the nation. The inner tensions used to be vented by the leading capitalist countries through a series of economic and colonial wars fought for the acquisition of markets and territories. Nevertheless, the socialist countries of Europe—the Soviet Union in the first place—have proved that accelerated economic growth can be achieved also without jeopardizing the economy and the independence of other peoples.

### The Distribution of the Population over Continents and Regions

The necessity of starting economic growth has never before in history affected

- such a large part of mankind,
- so many national economies,
- such vast territories

as are involved today.

The action radius of this process encompasses 71 per cent of the present population of the world and 81 per cent of the world population anticipated for the year of 2000.<sup>1</sup>

The world's population today is distributed over the various continents and regions as follows:

Africa	7 per cent
Eastern Europe	10 per cent
Far East	53 per cent
Latin America	7 per cent
Middle East	4 per cent
North America	7 per cent
Oceania	1 per cent
Western Europe	11 per cent

It is common knowledge that the population increase in the industrially advanced countries (including the socialist countries of Europe) is 1.1 per cent while that of the developing countries is 2.4 per cent.<sup>2</sup> The fact that the population in the developing countries will rise to 81 per cent or even more of the world total is due to the differences in the rate of population growth.

Most computations have failed to consider the trend in the age pyramid of the developing countries which may start a second demographic surge. The point is, that the age group between 0 and 9 shows a marked expansion in most developing countries. The number of those under the 9 in Pakistan, the Philippines, in Mexico

<sup>1</sup> *The Future Growth of World Population*. UN, New York 1958.

<sup>2</sup> *The UNESCO Courier*, February 1965, pp. 13–14.

and in Indonesia is about 2-15- to 2-60-fold that of the age group 25 to 34. This phenomenon permits the inference that by 1975 when those now under 10 reach the reproductive age, the rate of proliferation may again make a leap since, in the meantime, infant mortality and general mortality will obviously fall.<sup>3</sup>

The number of national economies wanting to accelerated growth is around eighty, yet this number is likely to rise by the creation of new independent states.

The growth process affects about 60 per cent of the territory of the globe.

### The Gulf to Be Bridged

Another thing to be taken into account is that the gulf to be bridged by accelerated economic growth has never before been as wide as it is in our days.

Let me quote a few illustrative examples to support the above statement. The average of the per capita national income in the industrially advanced countries is around \$ 1,000 and it is estimated to reach about \$ 100 in the developing world. Average figures, however, invariably fail to give an idea of the typical mode and of the dispersion, i.e. the upper and the lower limit values which, if frequent, are of the greatest importance. In 1965 the per capita national income was above \$ 3,000 in the United States, whereas it hardly attained \$ 40 to 50 in some of the developing countries. The per capita national income of the advanced and of the developing countries can, naturally, not be collated without any further analysis. Nevertheless, certain tendencies are convincingly revealed by the figures quoted above.

According to authoritative economic computations relying on average data, the developing countries—provided they can achieve an annual rise in the national income of 5 to 6 per cent (which none of them has so far achieved)—may catch up with the economic level of the advanced capitalist countries of Western Europe within some eighty years and with that of the United States within some 120 years from now. Such a trend in the growth process, however, does not necessarily mean the decrease of the differences since the achievements of the scientific and technological revolution will not fail to step up the economic growth of the industrially advanced countries, too.

When weighing the international consequences of the present gulf it should be remembered that the development of the various forms of communication, transport, intercourse among the peoples have made the living conditions of the different countries competitive. This statement applies particularly to the highly qualified experts who have acquired a key position with respect to the acceleration of economic growth.

We shall, in the following, compare the intellectual and material energies available in the developing countries and those to be found in the other parts of the

<sup>3</sup> For the age pyramids of our days, see P. S. Florence, *op.cit.* (p. 269).

world. We wish to stress that we look upon the amount of intellectual and material energies not only as expressing the given situation and power relations but also as a factor affecting economic growth over a longer or shorter period. In other words, we consider the present intellectual and material energies as dynamic variables whose interrelated changes have a decisive influence on the growth process.

Today 89 per cent of the world's income is concentrated in thirty countries. The value of the national product of the world for 1964 was estimated at \$ 1,800,000 million. The total national product of the developing countries amounted altogether to \$ 200,000 million.

Moreover 85.5 per cent of the gold and foreign-currency reserves of the world, 93.3 per cent of its steel production, 89.2 per cent of its crude-iron production and 72 per cent of its power production are concentrated in the thirty countries mentioned earlier.<sup>4</sup>

As far as the production data are concerned, what we want to point out is not so much the disparity in the manufacture of the industrial goods or semifinished goods but rather the alarming situation in the production of the agricultural staple goods. These obviously have a paramount importance for the supply of the population, and the order of magnitude of their demand is closely linked with the population trends.

It is instructive to note that 60.6 per cent of the cereal production of the world (including rice and corn), 68.6 per cent of its meat production and 79.3 per cent of its protein production are concentrated in the advanced countries.

The situation has become particularly grave in respect of bread grains: six exporting areas faced one importing area (Western Europe) between the two world wars, whereas today there are only two exporting areas: North America (the USA and Canada) and Australia, with rather poor surpluses in the latter. Latin America, Asia and Africa have all become importers and even Eastern Europe needs imports now and then (in years of bad crops).

Among the long-term factors of economic growth we wish to refer in the first place to the scientific research capacities and to the situation with respect to the highly qualified specialists.

According to computations undertaken by international organizations,<sup>5</sup> 95 per cent of the scientific research capacity is concentrated in the thirty countries mentioned above.

In Chapter 11, on educational policy, we have mentioned the present and the expectable shortages in highly qualified experts as liable to aggravate.

Owing to the disparity and the extremities in the distribution of the economic resources and activities the gulf between the advanced and the developing world has become wider in every respect during the past years.

<sup>4</sup> The figures have been calculated by the author, on the ground of UN yearbooks and statistical publications.

<sup>5</sup> This statement is based on data published by the UNESCO.

Since 1958, the per capita national income of the advanced countries has risen by 22 per cent; that of the developing countries has decreased.

The share of the developing countries in the world's export (1950 = 31 per cent, 1962 = 20 per cent) and import (1950 = 27 per cent, 1962 = 21 per cent) has also diminished.<sup>6</sup>

In the late 1930's the developing countries exported 11 million tons of grain but by the end of the 40's they turned importers and in 1964 their imports amounted to 25 million tons. In 1965 this went on growing as the United States shipped only to India 10 million tons to appease the great famine.<sup>7</sup>

Beside the backwardness of agricultural production, this situation is also connected with the demographic explosion, propagating at an accelerated pace. Between 1960 and 1980 the population of the developing countries will grow by 900 million and that of the rest of the world by 300 million.

Between 1955 and 1963 the foreign-currency debts of the developing countries rose from \$ 9,000 million to \$ 28,000 million, totalling \$ 33,000 million in 1964 although the conditions of repaying debts became more favourable in the first half of the 1960's. The burdens of interests and amortization deriving from the growing indebtedness have caused grave difficulties in the developing countries.

A symptom more threatening than any of the problems and difficulties discussed so far is the recess in the growth rate of the developing countries in the sixties. Between 1950 and 1960 these countries achieved an average annual growth of 4 per cent in their national incomes. One of the aims of the "Development Decade" of UNO was to raise the 4 per cent to 5; in fact, the average growth rate went down to 3 per cent between 1960 and 1965. Under such conditions the per capita incomes of most countries remained virtually unchanged.<sup>8</sup>

The reduction of the growth rate is linked partly with the problems of internal economic policy and control dwelt upon in earlier chapters. Without repeating the relevant considerations we wish to refer to one of our statements, to wit, that the economic growth of the developing countries is essentially dependent on world economy. No such situation can be conceived in which a developing economy, being affected by adverse or negative impulses from the world economy, should develop at a rapid pace.

On the other hand: the favourable or positive impulses coming from the world economy foster the acceleration of growth. Naturally, no one-sided inferences should be made from this statement: the development of every national economy depends on the effectiveness of the country's social and economic regime and on

<sup>6</sup> These figures are based on the *Statistical Yearbook of UN for 1964*.

<sup>7</sup> *The Times*, January 12, 1966.

<sup>8</sup> The data published by the International Bank for Reconstruction and Development somewhat differ from those quoted here. In his study [B. Balassa: *Economic Growth, Trade and Balance of Payment in the Developing Countries (1960-1965)*. (Mimeographed, IBRD-IDA.) Washington 1968] Béla Balassa puts the growth rate at 4.6 per cent between 1950 and 1955, at 4.4 per cent between 1955 and 1960 and at 4.2 per cent between 1960 and 1965. On the other hand, population growth during these fifteen years showed a constant rise; the corresponding figures being 2.1 per cent, 2.4 per cent and 2.6 per cent.

the efforts made by its population. This statement applies also to the advanced countries. Yet it is evident that favourable world-economic effects may accelerate economic growth and untoward effects may put an intensive brake on it.

The developing countries, as we have so often said, are extremely sensitive to the changes in the world economy.

### Factors Responsible for the Sensitivity of the Growth Type to World Economy

What are the factors, circumstances and phenomena eliciting and enhancing the sensitivity to world economy of the developing countries in the course of the growth process?

The sensitivity to world economy of this growth type can evidently be traced back to two main groups of influencing factors:

a) Owing to the uneven distribution of the economic resources, the developing countries are unable to produce and concentrate the material and intellectual energies necessary for the acceleration of their growth, by relying exclusively on their own forces.

b) In an import-sensitive economy the growth process raises the import needs more rapidly than the export possibilities, and the conditions of trade, owing to the rapid technological development and to the greater market power of the advanced countries, constantly deteriorate for the developing countries.

Let us examine the present situation of these two groups of factors, as well as their anticipated trends under the actual conditions of the world economy in our days.

As a consequence of the general economic and social conditions the internal capital accumulation of the developing countries hardly exceeds 10 per cent of their aggregate national income. (We have already said that in 1964 the aggregate national income of the developing countries was around \$ 200,000 million which represented 11.1 per cent of the world's income.) It follows that the internal accumulation of all developing countries is something around \$ 20,000 million. It should, however, be remembered that in many African and Asian countries the rate of internal capital accumulation hardly attains 5 to 8 per cent of the national income.

With such a low rate of accumulation nothing more can be expected than an economic growth keeping pace with the population growth: the acceleration of economic growth and a substantial size of the per capita incomes would naturally be inconceivable.

It is important to realize that with an underdeveloped industry the internal accumulation can only be transformed into investments through the medium of imports. Yet, for well known reasons, the country is unable to produce foreign currency necessary for financing imports.

It follows that the developing countries need very substantial foreign resources (aids) for stepping up their economic growth.



## The Dynamism of Credits and Aids

The flow of international credits and aids, as compared to the first half of the fifties, evidently shows an ascending tendency on account of the changes in the political and economic power factors. The evolution of this tendency had been promoted by the following factors:

- a) the growing weight of the developing countries in world politics,
- b) the appearance of the socialist countries among the countries offering credits and aids,
- c) the growing political and economic pressure of the public opinion of the world upon the economic power centres,
- d) the enhanced activities of the international organizations in questions relating to the economic growth of the developing countries.

Having earlier explained it in detail we only wish to recall that we do not subscribe to the conception of independent development, relying exclusively on the country's own resources, under the present and impending conditions of world economy. There is no country, no people, even if most powerful, that can remain independent of the economic processes going on in the other parts of the world. It is also evident that the application of the scientific and technological results achieved in other parts of the world promotes economic development while their refusal slows it down. The governments of the developing countries must, naturally, make every effort to contract such credits and aids as are not threatening their political independence and national dignity and can be co-ordinated with their economic endeavours.

The inflow of credits and aids into the developing countries shows the following trend (in thousand million dollars)<sup>9</sup>:

1950-1955	1955-1959	1960	1961	1962	1963	1964
annual average						
3.7	7.7	8.9	9.5	9.0	9.0	9.2

Credits, aids and funds obtained in the form of foreign investments represent nearly 30 per cent of the investments of the developing countries and more than 20 per cent of their foreign-currency revenues. The capital import amounting to \$ 9,000 million is in itself a significant achievement which is incommensurable with any precedent in economic history. It is known that in the period of their economic growth the advanced capitalist countries of our days also needed capital import. Thus, for instance, Britain and France before the 18th century relied on

<sup>9</sup> *OECD Report for 1964; The OECD Observer*, October 1965.

Dutch financial support and, later on, the United States used British and French financial resources. The countries that set out later on the road of industrialization, such as Germany, Japan and Canada, for instance, also needed substantial foreign resources. Taking into account a longer period, the order of magnitude of these capital imports can be calculated to have amounted to 1 to 3 per cent of the contemporary national incomes. On the other hand, the capital import of the developing countries (calculated from the average of the past five years) is around 5 per cent of their national incomes.

As will be seen, very wide dispersion and extremities occur within this average.

Nevertheless, the order of magnitude of the credits, aids and foreign capital investments proves that the other parts of the world play an increasing role in the progress of the developing countries.

On the other hand, the amount of credits and aids has shown a tendency to stagnation since 1961, in spite of its rise above \$ 10,000 million in 1965. The creative spirit of the Geneva World Conference on Trade and Development was unable to change this tendency, whereas the second conference held in New Delhi has strengthened it. The rising armament expenditures of the advanced world, the uncertainty caused in the international situation by the war in Vietnam, the devaluation of the pound, the difficult position of the dollar and other factors are so many obstacles to the increase of credits and aids.

The progressive forces of the world must, therefore, make every effort to reduce armament and to achieve a political solution of the Vietnam conflict.

The structure of credits and aids has also undergone substantial changes. The total of the state credits has risen from an annual average of \$ 100 million between 1950 and 1955 to 6,500 million, including the socialist countries. On the other hand, the export of private capital (credits financed by private enterprises, with or without guarantees by their government) rose from \$ 1,600 million only to \$ 2,800 million by 1964. But the mere collation of these two data does not completely reflect the actual tendency since the overwhelming majority of private capital exported in the period between the two world wars to the developing countries came from private sources. On the other hand, between 1960 and 1964, private capital had only a share of 34 per cent of the credits and aids granted by the capitalist countries to the developing ones. Finally, it should also be noted that the export of private capital to the developing countries has virtually stagnated since 1957.

The evolution and the consolidation of this tendency can be traced back to several factors.

a) The "dispersion effect" (G. Myrdal's term<sup>10</sup>) of the capital has significantly diminished during the past decades. Hence the capital invested abroad is relatively less today (i.e. compared to the economic resources of the capital-exporting countries, to the volume of the world-economic processes and to the demand of the capital-importing countries) than it was prior to World War I. To complete this

<sup>10</sup> G. Myrdal: *Economic Theory and Underdeveloped Regions*. Meuthen and Co. Ltd., London 1964.

picture however, we must note that capital export has for the past years displayed a definitely ascending tendency.

The stock of foreign investments of Great Britain, the chief capital-exporting country prior to World War I, amounted in 1913 to one and a half times her national income. On the other hand, in the mid-sixties the stock of foreign investments of the United States, now the chief capital-exporting country, hardly amount to 12 to 13 per cent of its national income.

b) A tremendous investment boom has developed in the advanced countries themselves and has substantially improved the conditions of capital investments, as shown, among other things, by the fact that the rate of profit has displayed an ascending tendency in the advanced capitalist countries ever since 1957.

c) The yield of the capital invested in the developing countries, except the oil-producing ones, is in general not higher or not essentially higher than in the advanced countries. Private capital, however, feels that the same rate of returns requires greater political and transfer risks in the developing countries. The reduction of returns from these countries is linked with many a known factor such as, for instance, the increase of the additional investment needs, with the decrease of the share of wages within the production inputs, with the decreasing relative significance of the raw materials and with the slow development of the internal market.

The objective economic circumstances enumerated above are coupled, naturally, with numerous political considerations, as for instance the termination of the privileged position of foreign private capital, the possibility of nationalization and other similar factors.

During the period of colonization the developing countries accumulated very bad experiences in the field of what is called direct investments. Often huge enterprises (United Fruit in Central America, the oil companies in the Middle East, etc.) settled in small countries represent a great or even the greatest economic power in the relevant countries since the majority or at least a great part of the foreign-currency revenue, of the tax revenue and often even of the aggregate investment derive from their activities. These large firms are well versed in the management of their affairs, have a world-wide commercial network and maintain good relations with the governmental organs of their home countries. Hence the sectors falling within the sphere of activity of these large enterprises remain virtually outside the sphere of the free governmental decisions. What is more, these large enterprises act upon co-ordinated plans and on the basis of wide-scale information. Although the activity of such large enterprises corresponds to the criteria of monopolistic competition, particularly if they do not belong to the same country, yet they may occasionally build up a common front against the governments of the developing countries. Relying on the experience of many decades, under the conditions of monopoly capitalism, they are more expedient in co-ordinating their policy and in finding the roads of compromises than are the developing countries between themselves. That is why it often happens that the activities of these large enterprises become obstacles to the economic growth of the small countries.

Owing to the diminishing weight of private capital in the credit inflow, the financing of the developing countries with foreign funds is becoming more and more the task of the governments. Actually, all credits granted by the socialist countries come from governments while 66 per cent of the resources obtained from the advanced capitalist countries derive from government funds. The growing role of the state in the capitalist countries is shown by the fact that more than 20 per cent of the private credits and capital investments enjoy state guarantee.

### Trends in Credits Granted by Governments

The state credits are obviously more advantageous for the developing countries than are the direct investments of private capital. From this viewpoint the changes that have affected the structure of the credits and aids should be qualified as favourable. Yet, on the other hand, the advanced capitalist countries may and—as experience shows—often do, abuse this situation by making the granting and the conditions of the credits dependent on practical political consideration. This danger is enhanced by the fact that the majority of the credits and aids are granted by the big powers still pursuing a neocolonialist policy. The United States, Great Britain, France and the German Federal Republic grant today 90 per cent of the credits and aids coming from the capitalist countries. The United States' sweeping advance is conspicuous: prior to the Second World War it granted but 30 per cent of the capital flow to the developing countries, now this figure is 60 per cent.

The Table on p. 511 shows the net state credits and aid services of the OECD countries.<sup>11</sup>

It is clear from the tabulation that the small countries having no colonizing aspirations or having had to renounce such aspirations grant comparatively small amounts of credits and aids. It is worthy to note in this respect Austria, Norway and Sweden in the former category and Belgium and the Netherlands in the latter. It is also well known that the four big powers mentioned above have a much smaller share in the industrial production, foreign trade of the advanced capitalist world and in its trade with the developing countries than in the granting of credits and aids. These tendencies appear also when the volume of the credits and aids granted is related to the national income of the financing countries. France has assigned almost 2 per cent of her national income to credits and aids; the same figure is 0·8 per cent for the United States, Great Britain and the GFR, and only 0·1 to 0·2 per cent for Austria, Denmark and Norway.

Owing to the shifts of the dimensions of the flow of credits along state and private channels, the objectives of the credits and aids have also changed. Credits for the development of trade have come to the fore, and a new form of granting funds—the aid—has been widely adopted.

<sup>11</sup> *OECD Report for 1964; The OECD Observer*, October 1965.

*Net State Credits and Aids Granted by the OECD Countries*

	1956	1957	1958	1959	1960	1961	1962	1963
	million							
<i>Net state aids</i>								
Austria	—	1	2	7	—	2	14	1
Belgium	20	20	23	79	101	92	80	93
Canada	29	48	92	60	75	62	54	98
Denmark	3	2	5	6	6	8	7	10
France	648	819	884	832	848	943	975	863
GFR	161	298	278	325	343	615	450	424
Italy	43	164	73	94	110	85	110	110
Japan	94	92	285	125	145	222	168	174
Netherlands	48	23	39	50	47	69	91	38
Norway	8	8	—	4	10	9	7	21
Portugal	3	3	1	17	37	44	41	51
Sweden	3	12	4	18	7	8	5	6
United Kingdom	205	234	276	377	407	457	421	414
USA	2,006	2,091	2,410	2,322	2,801	3,488	3,573	3,721
Total	3,270	3,859	4,381	4,349	4,942	6,134	6,014	6,048
Long-term private credits granted	2,578	3,230	2,717	2,435	2,580	2,593	1,914	1,871
Private export credits granted with state guarantee	395	430	170	316	463	493	548	566
Grand total	6,243	7,519	7,268	7,100	7,985	9,220	8,475	8,486

In the period up to the Second World War direct investments dominated the external financing of the developing countries. In those days the trade relations between the advanced capitalist countries (mostly the colonizing powers) and the developing countries of our days (the former colonies) were the functions of these investments. The imports of the developing countries consisted mainly of investment goods embodying foreign investments, and most of their exports were made out by the goods produced by these investments. At the same time, these exports served to transfer the interests and profits of the foreign investments. In our days, however, as we have said, the significance of the direct investments is on the decrease.

For the time being, financing is meant to make up for the currency shortage of the developing countries and to develop the trade relations between the countries granting credits and those receiving them. All private credits are meant to promote the export of the country granting the credit and so are some 80 to 90 per cent of the state credits granted on a bilateral basis. Viewed from the angle of their direct effects, the credits of international agencies have also a trade-developing character since they serve to finance, in the first place, the imports connected with economic development.

The aids, except for the technical ones, also have a trade-developing effect. The technical aids serve mainly purposes of economic development.

Between 1960 and 1964 the various aids made up about \$ 2,000 million, i.e. 40 per cent of all funds received from the advanced capitalist countries. Half of the aids were destined to place the surplus commodities of the financing countries.

The OECD countries have during the past years allocated \$ 1,000 million for technical aids on a bilateral or multilateral basis. The technical assistance is used to train experts, to modernize the equipment of schools and universities, and to create model plants. Although technical assistance serves primarily the purposes of economic development, it is evidently also contributing to placing various goods (instruments, installations, etc.)

Also the credits granted by socialist countries are essentially trade credits. The trade-developing credits promote economic development partly by easing the shortage in foreign currency and partly by ensuring some imports independently the export capacities. On the other hand, they obviously hamper the development programmes not requiring imports. Such forms of external financing play a significant role in rendering the economic growth of the developing countries more capital-absorbing and import-absorbing than would reasonably be necessary.

### Bilateral and Multilateral Credits

The above-mentioned structural changes are reflected also in the forms of financing. Since the international power-political viewpoints have come to the fore and the tendency to develop trade is prevailing, the overwhelming majority of the credits go to the developing countries under bilateral agreements.

The past years have witnessed also the extension of the multilateral credits. Among the international institutions granting credits, the World Bank and its affiliated organization, IDA, as well as the International Monetary Fund and the regional credit institutions should be mentioned as the most important ones. The credits placed by the international organizations derive partly from contributions made by states and by private capital, partly from self-financing. (It is very difficult to separate statistically the last two sources.) The amount of the state contributions rose from \$ 100 million between 1950 and 1955 to an annual 400 million between 1950 and 1959, and to \$ 600 million between 1960 and 1964.

Hence the volume of the credits granted by the international institutions in the past years has attained figures varying between \$ 700 and 900 million to exceed, for the first time, in 1956 the \$ 1,000 million mark.

In addition to this, the advanced capitalist countries have, in the past years, granted \$ 200 to 300 million of multilateral credits annually to the developing countries. With this, the volume of all multilateral credits granted to the developing countries has attained \$ 1,200 to 1,300 million, i.e. about one-eighth of all credits.

The geographical distribution of the credits and aids also show that at present political considerations play a substantially greater part than do the economic ones. The indicators of the specific assistance show a very wide dispersion. The Table on p. 513 shows the trends in the indicators of specific assistance to some devel-

oping countries of major importance. It should be remembered that the data derived from UN sources, owing to the different methods of compilation, are much lower than the OECD data and permit but a very rough comparison. The UN data do not seem to contain food assistance, part of the budget contributions, the guarantees of the export credits, the reinvested profits etc.

*Indicators of the Utilization of Specific Assistance  
in the Developing Countries*

	Aids per 1 inhabitant			Aids per \$ 1,000 of national income			Aids per \$ 1,000 of import		
	1950-55	56-59	60-62	50-55	56-59	60-62	50-55	56-59	60-62
<i>Developing countries</i>									
a) gross aid	3	6	6.50	26	42	53	161	275	290
b) net aid	1.70	2.8	4.10	15	23	33	91	132	184
<i>Africa</i>									
Egypt	—	2.0	4.80	—	18	37	—	90	181
Ethiopia	0.2	0.7	1.50	3	14	27	50	194	326
Ghana	—	—	16	—	—	85	—	—	303
Morocco	—	—	6.70	—	—	40	—	—	189
Sudan	—	0.2	3.90	—	1	28	—	12	202
Tunisia	—	—	16	—	—	82	—	—	335
<i>Asia</i>									
Burma	—	1.9	0.80	—	29	12	—	165	78
Ceylon	0.25	—	1.30	2	—	10	2	—	34
India	0.2	0.5	1.70	3	8	24	50	115	313
Indonesia	—	0.7	2.30	—	10	37	—	91	328
Pakistan	0.2	1.4	2.90	4	28	40	50	305	397
Syria	3.0	0.75	2.50	22	5	17	71	17	53
Taiwan	11	9.5	9.50	55	38	35	458	423	351
<i>Latin America</i>									
Argentina	2.50	4.60	18.0	4	8	33	44	79	273
Brazil	3.3	2.5	3.9	13	9	13	128	118	193
Chile	3.4	7.0	20.0	7	14	37	61	122	278
Columbia	3	10	2.40	12	37	8	62	265	62
Costa Rica	4	12	12	13	27	28	52	120	127
Dominica	0.40	1.50	—	2	6	—	11	33	..
El Salvador	—	—	2.70	—	—	11	—	—	117
Haiti	2.60	1.20	1.90	38	16	25	..	..	..
Honduras	4.60	1.80	0.70	23	9	5	127	48	21
Mexico	3.4	4.8	6.10	11	12	14	121	140	191
Nicaragua	4	3.80	5.60	20	20	26	66	69	98

Sources: Computations on the basis of the *International Flow of Long-term Capital, 1960-62*, and *Statistical Yearbooks* published by UN.

The sign — indicates a net outflow of capital in these years.

The data quoted may be presumed to contain only 50 to 60 per cent of the gross capital import or even less in the case of countries receiving substantial food assistance (India, Pakistan).

Even the most cautious treatment of these rough data makes it evident that the trends and disparities in the territorial distribution of utilization are the functions of political and trade-promoting considerations of the financing countries.

The specific indicators of countries possessing a smaller political weight, having more restricted economic resources and less significant internal markets are less favourable for long-term periods, although these countries, owing to these very circumstances, have a lower accumulation capacity. On the other hand, the indicators of the countries in a political and strategical key position are much more favourable than the average of the developing countries.

The increase of the specific indicators of the countries with a greater economic potential is also closely linked with the situation in world politics, with the competition between the great powers or with the modification of the political targets of one or another great power. The specific indicators of Chile, designated within the Alliance for Progress programme as a "model state", started suddenly to soar at the beginning of the sixties.

Even the rough data of this table show that there is a close correlation between the bilateral aids and the political considerations of the leading powers.

### Changes in the Credit Conditions

We shall now investigate the conditions of granting credits to the developing countries. Owing to the structural transformation of the credit volume, the conditions of financing have also changed. These changes are best illustrated by the modifications in the data on the length of credits, in the rates of interest, in the duration of the period without amortization.

The lengths of expiry of the credits have undergone substantial changes: while in the years between 1950 and 1955 the average share of credits granted for over ten years amounted to about 10 to 15 per cent, in 1961-63 their share constituted 80 per cent of all state credits and aids and 66 per cent of total financing. It is interesting to note that the share of the credits running longer than 25 years amounted, in the latter period, to above 20 per cent.

From among the advanced capitalist countries mainly the United States and Great Britain grant credits running longer than ten years (85 per cent). A few years ago the World Bank, too, prolonged the duration of the credits (20 to 35 years), IDA (founded in 1961) even grants credits for fifty years without interests.

The World Trade Conference is known to have set the requirement for the credits to run for 20 years. The rapid changes witnessed in this field indicate a possibility of complying with this requirement.

The crediting of export to the developing countries has undergone similar changes. In the early 1950's about 50 per cent of the value of the exported com-



modities was credited. In the 60's the share of crediting went up to 85-90 per cent and in many cases the cash to be payed on delivery has become symbolic (amounting to 1 to 2 per cent of the value of the commodities in question).

The timing of the repayment of credits has also improved. The "days of grace", i.e. the period between the reception of the credit and the first instalment, have multiplied. For the state credits this period runs into three to six years whereas in the case of international institutions it is often ten years.

The interest level of the credits shows a descending tendency. The average interest level in the years between 1955 and 1960 was around 6 per cent. In 1962 and 1963 only 30 per cent of the credits granted by the OECD countries claimed interests above 5 per cent, and 40 per cent of them were granted at a rate of less than 3 per cent.

The Soviet Union and the socialist countries are known to grant credits at the rate of 2 per cent and often even free of interest. This fact has had a considerable effect on the improvement of the capitalist credit conditions.

New tendencies have developed also in the conditions of credit repayment.

The socialist countries have made it possible to pay credit instalments in commodities. Also the advanced capitalist countries have changed their earlier practice in recent years, permitting to pay in commodities or home currency instead of their own currency. The practice termed "production sharing" is also gaining ground: the installations delivered on credit can be payed with the products of the new establishment. Examples of paying in commodities or under production sharing are frequent in the practice of Japan and the Netherlands. Repayment in local currency has been adopted chiefly in the practice of the United States which has extended this system to about two-thirds of its credits in the recent years.

These examples show that the conditions of the credit market have become more and more favourable for the developing countries. It must, however, be noted that these improved conditions are still very far from what the developing countries would really need.

The major tendencies characterizing the flow of credits and aids may be summed up as follows:

a) Compared to the 1950's the volume of the credits and aids flowing into the developing countries shows a favourable ascending tendency although has not changed essentially since 1961.

b) A growing part of the funds come from state sources, the share of the private capital showing a decreasing trend.

c) The bulk of the credits and aids serve the financing of trade development, and the political considerations play an important role in the decisions concerning their granting.

d) One-eighth of the capital flowing into the developing countries comes through multilateral channels.

e) As much as 90 per cent of the credits granted by the advanced capitalist countries come from the United States, Great Britain, France and the German Federal Republic. The small states play no essential role in this respect.

- f) The credits and aids are distributed among the developing countries very unevenly and do not promote the maximum mobilization of the internal resources.
- g) The conditions of credits have become more advantageous for the developing countries.

### The Retrieval of Funds from the Developing World

It is commonly known that the advanced world not only introduces funds into the developing countries but also retrieves part of them.

Funds are being retrieved along three main channels:

- a) by transferring profits,
- b) in the form of interests paid for credits or debts,
- c) through the disparity developing in foreign trade, i.e., as a result of the worsening ratio of export prices to import prices (i.e. the "terms of trade").

Let us investigate the order of magnitude in which the funds are retrieved from the developing world.

It is evident that the amount of the transferred profit cannot be established accurately; we are confined to estimates on the basis of the collation of the available data.

To begin with, the assessing of the amount of foreign capital investments in the developing countries presents many difficulties. To approach this problem we must rely on data published by the USA where representative methods are used to find out the order of magnitude of the foreign capital investments, and the data necessary for this purpose are published.

According to an 80 per cent representation, the US capital investments into the developing countries were estimated at \$ 11,500 million in 1962. These represented 31 per cent of all US capital investments. Since the survey covered only 80 per cent, the actual investments must have been around 13 to 14 thousand million dollars. Since the direct investments have grown ever since (although their share within the total capital is on the decrease) we may assume for 1966 an investment stock of \$ 17 to 18 thousand million.

Judging from the coefficient of the national product and of the national wealth, the invested capital in the non-socialist world can be set at \$ 1,600,000 to 1,800,000 million. This estimate relies on the fact that the value of the national product of the advanced capitalist countries was \$ 1,300,000 million in 1964 as against that of the developing countries amounting to \$ 200,000 million. If these computations come close to reality, then the foreign non-socialist capital invested in the developing countries amounts to 2 per cent of the whole capital stock of the non-socialist world.

Let us now estimate the order of magnitude of the profit produced in the developing countries. According to the representational computations mentioned above, the profit rate averaged about 15 per cent in the years 1960 to 1962, but only 11 per cent of the oil-producing countries are discounted. (We are, naturally, well

aware of the fact that the real size of the profit rate is not reflected in these data since the enterprising businessmen are interested in reporting values lower than the actual profits.) If, for lack of any better, we accept these data, it seems that the profit produced was about 4,500 to 5,000 million dollars. According to certain information, the rate of profits produced in the developing countries is decreasing. We have also taken into consideration that, according to US sources, 15 to 17 per cent of the profit produced is being reinvested in the developing countries.

From these proportions we may infer that the profit transferred from the developing countries can hardly be less than \$4,000 million a year. In fact, considering the above-mentioned circumstances, the actual sum may be higher.

As for the amount of interests and amortizations, we have said that the foreign debts of the developing countries are rapidly growing. In 1955 the sum total of all their debts amounted to \$ 9,000 million; this gradually rose to 28,000 million by 1963 and to 33,000 million by the end of 1964. According to the report of the World Bank,<sup>12</sup> the indebtedness of the developing countries showed the following rise between 1955 and 1963:

*The Indebtedness of Some Developing Countries  
in 1,000 Million Dollars  
(Data Refer to the End of the Year)*

	1955	1963
Argentina	0.6	2.1
Brazil	1.4	2.3
Chile	0.4	0.9
Columbia	0.3	0.7
India	0.3	4.0
Mexico	0.5	1.6
Pakistan	0.1	1.2
UAR	0.2	1.3

The increase of debts naturally involves the increase of the debt-service (interests and instalments). This burden has grown despite the more favourable conditions of the recently contracted debts. In the 1950's the debt service amounted to \$ 1,000 million but reached 4,000 million in 1964. The developing countries spend more than 10 per cent of their currency income to pay for the debt services, and these consume a large part of the new credits and aids.

Thus, the annual aggregate of transferred profits and debt service absorbs most of the new credits and aids: an annual \$ 8,000 million out of a total of 9,200 million. On account of the expatriation of profits and of the growing burden of interest, any demand for net aid of a certain order of magnitude presupposes a greater gross aid to cover it.

<sup>12</sup> *World Bank Annual Report 1964-65.*

It should be remembered that further funds are extracted from the developing countries through commodity exchange. This is because—even if the exchange of goods relies on the principle of mutual advantages and equality—the disparity in the distribution of the material and intellectual energies is inevitably reflected in it.

The process of exchange is the resultant of the processes that precede it in the production cycle. If there is a disparity in the production conditions, this is necessarily reflected also in the exchange of commodities.

On the other hand, on the world market there appear, in addition to the commodities (which exactly reflect the differences in the production conditions) also the power relations taken in the narrower and the broader sense, and these have a strong bearing on the concrete terms of commodity. The advanced capitalist world has seen the development, in the past decades, of economic superpowers which are able to influence the exchange and the associated economic processes to their own advantage. The decisive character of these influences rests on the vast capital, on the vertical organization of the economy and on complete or partial monopolies. The latter develop according to the principles of monopolistic competition, i.e. the potential rivals come to partial compromises with the partners having opposite interests (in this case with the developing countries). With such a high organization, the greater economic power can always turn the exchange to its advantage.

The situation is aggravated by the fact that the developing countries must transact an overwhelming part of their trade (about 70 per cent) with the advanced capitalist world. The concentration of the capitalist economic powers are characterized by the fact that some 20 per cent of the world's industrial production is concentrated in the hands of one hundred (mostly American) big enterprises. The situation shows an even greater disparity in the sectors producing raw materials since 75 per cent of the natural resources of the non-capitalist world is in the hands of thirty monopolistic capitalist corporations.

The uneven distribution of the advantages resulting from commodity exchange between the economically stronger and weaker partners necessarily increases the disparity of the production conditions. The greater economic power is able to achieve profit on several occasions and from several sources both in export and in import. This trend becomes particularly conspicuous when the commodity exchange going on between enterprises is transferred to the level of the national economies. The stronger partner secures profit from transport, the various forms of processing, from the marketing of the finished product at home and abroad. This permits the big enterprises to gain profit in various branches of the economy, and thereby also their investment activities can be enhanced. The multiplier effect of these investments adds greatly to the economic growth of the countries where such enterprises are seated.

The expanded economic activity provides further incomes for the state (customs, duties, taxation of profits and consumption, etc.) and thereby enables the government to undertake new investments and to increase the rate of growth.

It should also be remembered that in the capitalist economy of today, the rates of profit tend to increase during the production cycle: they are lowest in the extrac-

tion and production of raw materials and highest in the manufacturing and trade of finished products.

An economically less developed country has none of these vast opportunities since the export of raw materials does not elicit economic activities as wide as the production and trade of finished goods. Hence also their possibilities of accumulation are more limited. Under these conditions most of the profit yielded by the export of the developing countries is being expropriated by the advanced ones. This is one of the reasons why the economic growth of a developing country cannot rest one-sidedly on export, although it is evident that the developing countries can not entirely dispense with the driving forces deriving from export.

Owing to the tremendous disparity in the accumulation possibilities, even an exchange of goods relying on the principle of equal rights must be repeated under constantly worsening conditions for the weaker partner and under ever improving conditions for the stronger one. It should also be remembered that the true dynamics of present-day economy lies not in the quantitative development of the various productive branches but in the changes of the productive pattern as a whole; and in an advanced country such changes are always going on, rapidly improving the terms of foreign trade.

It is also well known that the export structure of the developing countries is extremely unfavourable since it consists, frequently up to 90 per cent or more, of foodstuffs and raw materials produced by tropical agriculture.

The characteristic tropical products for which there exist no substitutes (coffee, cocoa, banana, etc.) have a secured world market, yet the demand for them is inelastic, whence an exaggerated expansion of their production must lead to the fall of their prices. The slow increase of the consumption of the tropical foodstuffs is due to the fact that their per capita consumption rises but moderately and so does the population of the advanced countries.

In the agricultural staple goods which can be produced also (or only) outside the tropical zone, the developing countries are in need of imports, and the consumption of these goods will for a long time remain elastic since, at the slightest rise in the standard of living, their rapidly growing population wishes to consume more of them.

It should also be remembered that the contemporary industries consume less raw material for the unit of output than before, and that an increasing share of their demand is being met with synthetic materials.

Under the joint effect of these circumstances, the terms of trade show an unfavourable trend for the developing countries. The deterioration between 1950 and 1961 amounted to 26 per cent.

This proves that through the exchange of goods, particularly as a consequence of the deterioration of the terms of trade, substantial and ever increasing wealth flows from the developing countries into the advanced ones.

In connection with the deterioration of the terms of trade, several authors have voiced their opinion according to which the choice of the year 1950 as a basis for reference is not expedient since at the time of the "Korean boom" the prices

of raw materials were unreasonably high. These critical remarks are correct in themselves yet are not entirely realistic when examined from the angle of economic history. Whatever reasons caused these prices to rise, the processes themselves were taken as a basis for economic calculations and decisions. Several enterprises increased their production, opened up new sources of raw materials, since — owing to high prices — low-productivity plants also attained rentability and earned foreign currency in amounts of significance for the national economy. The structure of exports, with the terms of trade deteriorating, cannot be changed overnight since no material and intellectual resources are available for such a change.

### Do Equalizing Trends Exist?

In world economy at present there are no spontaneous tendencies that could stop or modify this process.

On the contrary, everything seems to indicate that the technical revolution, having gathered an unprecedented speed in the past decades, is coupled with polarization effects. The excellent French economist F. Perroux has demonstrated the presence of these effects and their consequences in world economy by means of theoretical models. Technological progress in our days depends on four to five leading (dynamic) industries, all of which require an unprecedented amount of intellectual and material resources and ensure, at the same time, a tremendous productivity. Nuclear industry, electronics, chemical industries, engineering and automobile industry can be looked upon as such "dynamic" branches.

Owing to the polarization effect of these dynamic industries, the disparities in technical level will go on growing not only between the industrial and non-industrial countries but also between the industrial countries themselves. The small countries whose economic resources and intellectual capacities are limited and whose market does not permit achieving substantial economies of scale are faced with a difficult position. A strong differentiation will start within every economy between the dynamic and the less dynamic (lagging) industries.

It logically follows from the mechanism of competition that the participants concentrate their efforts in order to win the competition or at least to maintain their position acquired.

Their efforts fail to take into account the factors acting "outside the competition", i.e. the social and world-economic consequences of the situation resulting from it.

The governments, too, will find it difficult to handle the situation. If the domestic industries fail to maintain themselves in the international competition, the national economy will suffer. The growth rate of national income will slow down, unemployment will increase, the purchasing power will stagnate and the country must lose some of its international prestige. As a consequence, the export possibilities will deteriorate even in sectors where the country could so far preserve its position.

During their economic competition with the leading capitalist countries, also the socialist countries must endeavour to improve their technological level and

increase their production since in our days even a relatively small lag in economic growth may have serious political and military consequences. What is more, a lag of this kind would jeopardize the security of the socialist countries since, in the present situation, the aggressive imperialist circles would obviously make good use of any imbalance.

In this sense the present technological progress, if no rational measures of a new type appear in world economy, involves polarizing rather than equalizing tendencies.

Polarizing tendencies can be observed also in the development of the long-range factors affecting economic life, among others, of science.

These problems have been discussed earlier in this monograph, and here we only want to point out that the "endogenous productivity" of scientific work derives from the competition of the scientists and research institutes of the advanced countries between themselves.

The scientific achievements and inventions have a dual character in our days. Every new discovery becomes an integral part of human knowledge and in this sense becomes independent of the social and international background of research, on the one hand, and, on the other, every new piece of information—particularly, but not exclusively, in the sphere of the applied sciences—is being achieved by institutions commissioned and financed by some economic organization and profitably utilized by this organization. Under such conditions also the disparities in the distribution of the body of knowledge must grow since the motor of scientific activity is not only the endogenous productivity of science but, to an increasing extent, also the material interests embodied in the organizations financing scientific research and utilizing its achievements.

In other words: a greater economic power can create a wider research basis, and by utilizing the results of research it acquires additional profits which, again, enable it to start new research.

It may be inferred from what has been expounded above that the tendencies affecting the production of the intellectual and material values in the advanced world will act in the direction of polarization and not of equalization in the coming decades unless rational international action interferes. Let us add that the polarizing effects are stronger in the case of the long-term factors than with respect to the short-term factors.

To sum up: if we try to extrapolate the present situation it seems almost inevitable that during the coming decades more means and funds will be extracted from the developing countries than what they receive in the form of credits and aids.

### Economic Efficiency of Credits and Aids

We wish now to analyse the efficiency of the present policy of credits and aids granted to the developing countries. We may approach the task from two angles, from that of the countries granting credits and aids, and from that of those receiving it. A country granting credit evidently wishes to help in a manner which is

advantageous for herself, too. In the case of a bilateral flow of capital this requirement must always be taken into account.

When analysing the efforts of the countries granting credits we have stressed two major tendencies; one resulting from political considerations and another serving to develop the export of the creditor country.

The question then may be raised how far the creditors seem to have attained their political goals. In this sense, the aim of the credit is to influence the political behaviour of the debtor country. It is necessary, however, to include in the definition also the time factor since it is relatively easy to influence the short-term policy of a country by credits but the same credits are likely to enable it, in the long run, to develop an independent political line of its own which may be opposed to the creditor's interests.

If some country is to be influenced only with respect to its dealing with the present situation, long-term considerations are obviously neglected. In acute situations—for instance when it is about to overcome a crisis eliciting high political tension—short-term considerations may constitute the basis of rational action.

But the inclusion of the time factor in the analysis means that the objectives of influencing must be adapted to the anticipated future situation of the world and the given country. If we regard the developing countries as power factors of world policy which, by their existence and by their growing energies, will act upon international politics with an increasing intensity during the decades to come, it is evident that their behaviour can and should be influenced in the first place by economic actions led by long-term considerations. (Let us add in parentheses that we must distinguish between the possible political conditions of a credit or aid and the political considerations of the country granting it. The former violate the national sovereignty of the developing countries and should therefore be definitely rejected. In the case of bilateral agreements it would not be reasonable to pretend that the country offering the credit or aid is not governed by any political considerations. But if these are expressed only in the fact of granting credit or aid, and political conditions are associated with it, the receiver country should accept the offer. It is evident, namely, that any form of relation between countries and their institutions must have an impact on the partners.)

If, then, the advanced countries offering credit and aid and the developing ones receiving them correctly assess

- the trends in world politics,
- the inner power-political relations of the developing countries,
- the economic actions relying on long-term considerations,

it is obvious that a certain influence will take place, i.e. a political bond relying on mutual confidence and friendship will develop between the granting and the receiving country.

But those who look and see are well aware of the fact that no such relationships have yet developed between the advanced and the developing countries. On the contrary, public opinion in the granting countries resents the endeavours of the governments to give assistance to the developing ones, and their question often



comes into the focus of unworthy disputes and political bargaining. These disputes, or rather their tone, are often insulting the (very sensitive) public opinion of the developing countries. And these disputes often result in compromises endangering the real meaning and also the efficiency of aid. The governments of the advanced countries must often make compromises to the opposition in respect of the volume of credits or aids to be granted and of the conditions prescribing their utilization.

On the other hand, there is a growing disappointment in the developing countries against the advanced one. The latter are believed to be prevented by their selfishness from understanding the grave problems of the developing countries. This disappointment and anger often descend also upon such politicians and economists of the advanced world who, guided by the noblest motives, are deeply concerned with the problems of the developing world. These emotions often assume the form of political demonstrations and actions which have an intensive impact on the very sensitive public opinion of the developing countries. The public opinion of these countries has just recently come into contact with the world and the great community of nations. It is understandable that its first reaction should be an introversion, i.e. the belief that the developing countries must not rely on others. And such a wave of introversion is frequently followed by a wave of intensive hatred of all that is foreign.

In such cases, the assistance will miss its target, and the relationship between the assisting country and the assisted will lack the characteristics of mutual confidence and friendship.

Yet in our century no people and no state may remain introverted for long since the fate of all peoples is under the thousand-fold influence of various impacts, direct and indirect, coming from the "world".

### Low Efficiency of Aid Granted on the Basis of Political Considerations

The political inefficiency of bilateral aids granted for political purposes can be traced back to several factors. First of all, it would be a fatal mistake to equate the magnitude of a sacrifice made by an advanced country with its political impact on the developing country. If, politically, the public opinion of a developing country is divided in the question of foreign-political orientation, a substantial part of the population will feel suspicious about foreign aid. On the other hand, the partisans of foreign aid will carry on a wide propaganda to prove its importance. This propaganda will clash with, and hurt, part of the national public opinion. In this situation, the apparatus of official propaganda may feel it appropriate to sharpen its arguments in favour of foreign assistance; but by this very fact it is likely to commit blunders against patriotic feelings, and to elicit "propaganda" apathy even among the partisans of foreign aid.

When later on it turns out that the widely propagated foreign aid fails to solve the country's problems, since economic growth continues to slow down, unemployment does not decrease, the population is still undernourished, etc., the public opinion of the country is likely to become hostile to the country granting the aid.

It is still open to doubt whether or not the efficiency of bilateral aids serving political purposes can at all be secured under the present world-political conditions. Aid may be offered either by an advanced capitalist country or by a socialist country. In our days, owing to the confrontation and economic competition of the socialist and capitalist systems, the problem of the provenance of the aid seems to be overestimated. Practice has shown that capitalist countries or organizations did grant credits to socialist countries, and these credits did not in the least change the social and economic system of the receiver countries. It has also frequently occurred that socialist countries have granted substantial credits to progressive-minded governments of certain developing countries but, in spite of this, reactionary governments were able to seize the power. Thus, it seems that the social and economic regime of a developing country does not depend on the provenance of the aid it has received.

In spite of this, stormy political debates usually develop in the developing countries around the acceptance of foreign aid. In the early period of economic growth the problem of foreign aid arises simultaneously with the vital questions of national, social and economic development. The progressive forces feel that an aid coming from an advanced capitalist country necessarily strengthens the position of the existing conservative elements. On the other hand, the conservative forces believe that an aid coming from a socialist country would strengthen the position of the left, of its elements. Hence the question of acceptance or refusal of any aid offered usually elicits political debates, and the emotions aroused often turn into strikes, mass demonstrations and disturbances.

In such political debates, the adversaries are not able to assess the real effects of a foreign aid since they overestimate its economic outcome either in the positive or in the negative sense. At present the total amount of foreign credits and aids, as has been said before, does not attain 3 per cent of the national income of the developing countries. Hence, an aid granted by some of the big powers usually does not exceed—apart from certain extremes—2 or 3 per cent of the national income of the receiving country. (By extremes we mean mainly the military aids yet we do not wish to analyse here the relevant problems.)

The actual impact of the foreign aid is likely to cause the greatest disappointment for those who have argued in favour of its acceptance, i.e. who have been convinced that the aid will start decisive or at least very important changes in the economy of the country. When in practice they find that this is far from being true, they feel frustrated and, instead of recognizing the errors committed in utilizing the foreign resources, they start to blame and reprimand the country granting aid. The disappointment of the former partisans of the aid then runs parallel to the growing protest of its former opponents who feel that the events have justi-

fied their attitude. Under such conditions the country granting assistance will appear in a politically unfavourable light in the receiving country, and the aid will fail to achieve its main political objective.

### The Impact of Credits Granted to Develop Trade

The credits granted in order to develop trade seem to have been more successful. The imbalances associated with the first period of economic growth (particularly with the lack of foreign currency) and the deterioration of the terms of trade would obviously have substantially reduced the purchases of the developing countries without credits and aids. Such a situation would have affected adversely both world trade and the economic development of the leading capitalist countries. The economic growth of the developing countries would have stopped short if they had not been able to finance their increasing imports. Hence, in this sense, the granting of credits and aids has been advantageous also for the developing countries.

No doubt, however, that the credits given with the objective of the development of trade have hardly, if at all, contributed to the liquidation of economic backwardness in the developing countries. It is a fact that, in most of these countries, the growth rate has slowed down, and accumulation of capital has hardly increased in spite of an increased import of capital. (The average investment rate of the developing countries rose but from 12 to 15 per cent between 1955 and 1965, and half of this increase came from foreign sources. In most cases, domestic savings were increased by compulsion, i.e. by a draconic restriction of consumption, rather than by genuine economic growth.)

The share of the major creditor countries in the foreign trade of the developing countries, in fact, increased owing to the expansion of credits and aids. An adverse consequence of this process was that the trade between the developing countries dropped from 24 to 12 per cent of their total foreign trade. This negative phenomenon can be accounted for by the fact that the developing countries are not able to grant one another the same privileges in credit and trade as are granted to them by the advanced countries.

One of the principal advantages of the creditor countries consists in being able to furnish investment goods in kind. In this manner the multiplier effect materializes in the industrially advanced countries. From the angle of the enterprises, this development resulted in substantial economies of scale.

An adverse effect of unco-ordinated foreign aids consists in the creation of many parallel capacities in the developing countries.

A substantial part of the foreign credits and aids served to develop agricultural production of a monocultural character and the export of raw materials. This resulted in an increased economic competition between the developing countries, in lower world market prices and in economic losses involved by them. Cases in point are the exaggerated development of African coffee and cocoa production,

the expansion of the production of natural rubber, cotton and aluminium, depending exclusively on the world market.

To sum up, it may be generally stated that foreign credits and aids have so far not proved suitable in influencing the political behaviour of the developing countries in compliance with the genuine long-range interests of the aid-granting countries. On the contrary, the problem of accepting bilateral aids usually becomes the centre of grave internal political struggles. These political fights make it impossible to assess the real economic value of the aid but are suitable to create an atmosphere of mistrust and hostility between the country granting the aid and the one receiving it.

From the commercial angle, these credits and aids ensure substantial advantages to the industrially advanced countries, resulting mainly from the active participation of the capitalist state either in the form of utilizing budget resources or by guaranteeing credits granted by private enterprises. This is an instructive example of the fact that, in our days, the state plays a role even in the conquering of foreign markets.

In many a developing country, foreign aids or credits have helped to prevent economic recession. Failing these, radical import restrictions would have been inevitable on account of currency shortage; and such restrictions would have extremely grave effects on their import-sensitive economies.

There can be no doubt, however, that foreign credits and aids serving the development of trade

- do not promote the development of agriculture producing for the home market, and the failure of such development endangers the very foundations of economic growth,

- do not promote the development of economic branches exerting the greatest inductive effect on the domestic economy,

- encourage the lavish treatment of capital and of imported goods, thus preventing the development of capital-saving methods,

- promote the creation of parallel capacities in the neighbouring countries and intensify competition among these on the world market,

- bring about a one-sided development, lacking the complexity necessary for a well-founded economic growth;

- cannot be co-ordinated with the other forms of aid (in particular, with the multilateral aids) whence the capital-absorbing capacity of the developing country does not grow adequately,

- are disproportionate to the internal needs and possibilities of the individual countries.

The analysis of the practice followed in aid policy proves that the present system is suitable only for preventing the major troubles caused by the growth crises; it is not able to accelerate economic growth. The developing countries obviously need assistance and the advanced countries are willing to afford it, provided it serves their own political and trade interests. (To be more exact, they will afford such aids they believe to serve their purposes, the achievement of which is rather doubtful.)

ful.) The conflicts derive from the lack of coincidence between the two kinds of interests, those of the receiving country and those of the granting one. Hence, the aids indispensable for the developing countries and the occasional direct investments may distort the reasonable trend of development.

### What Types of Aid Would the Developing Countries Need?

Let us investigate briefly what types of aid the developing world is in need of. First, the needs should be determined from the side of the growth processes taking place in the developing countries; second, the possibilities under the present conditions of world economy should be assessed.

The economic growth of the developing countries would be promoted mainly by credits and aids of the following types:

a) Credits and aids encouraging internal economic integration, i.e. the creation of national economies in the true sense of the word, less dependent on the world market. It logically follows that credits and aids granted exclusively on trade development considerations may promote economic growth yet distort its pattern. If economic growth fails to take its proper course, it will result in imbalances which, later on, will prove extremely hard to eliminate. Thus, the disequilibrium crises will become more and more grave and acute, and the restoration of a tolerable state of things will require an increasing amount of foreign funds.

b) Credits and aids of a more complex character, i.e. embracing most of the scarce factors influencing growth. There are definite correlations between the development energies, i.e. the amounts of productive capital, the infrastructure, the qualified manpower, the efficiency of economic institutions, the capacity to organize and the differentiation of the internal market. It is very unlikely, for instance, to find an advanced infrastructure or remarkable organizational faculties in an economy poor in capital. It follows that credit may liquidate capital scarcity over a certain area but does not solve the problem in itself. It requires an adaptation of the factors necessary for its utilization, and economic growth itself must be adapted to the situation where capital is being supplied from foreign sources. A developing economy can, evidently, not achieve this adaptation by relying exclusively on internal forces. That is why complex types of aids are needed to promote the co-ordination of all factors affecting the success of the investment projects in question. In this respect the technical aids play a considerable part but these are not yet co-ordinated with the other forms of credit and aid. The complex forms of assistance may, after a certain period of time, promote the growth of the capital-absorbing capacities of the developing countries. This would have a great significance since, for the time being, not only the aids are limited and partly ineffective but the capital-absorbing capacity of the countries needing aid is also restricted. Without an adequate development of this capacity the credits and aids also fail to achieve their purpose and, instead of accelerating growth, they lead to sub-optimal utilization of capital, i.e. to the deterioration of the capital coefficient.

c) Credits and aids which encourage the development of a growth type in which a paramount role is played by the mobilization of the domestic resources. We have earlier pointed out that the average share of the foreign aids in the national income of the developing countries is less than 5 per cent. The role of this much needed 5 per cent cannot be anything else than to promote the growth of the 95 per cent. This seems a rather obvious requirement; however it frequently occurs that foreign aid—especially when granted for trade development—leads to prodigality in capital and foreign currency.

d) Credits and aids should have an adequate induction and multiplication effect on the developing economy. The scarcely available active energies should be used to mobilize the still passive ones. Aid programmes based exclusively or primarily on the development of foreign trade fail to achieve their purpose. Not only foreign enterprises may constitute an “enclave” in the national economy but also domestic enterprises, if they were created exclusively for the purposes of developing foreign trade. On the other hand, investment programmes which create new links between various sectors, enterprises and regions may release vast amounts of passive energies, stimulate production in agriculture and handicraft, extend the market, increase employment, introduce new blood into the traditional order of the economic circuit.

e) Credits and aids should promote or, at least, should not hamper the growth of trade between the developing countries and the regional division of labour based on the principle of mutual advantages. We have seen that, owing to the backwardness of their forces of production and to the low level of productivity, the developing countries must sustain serious losses in their trade with the advanced countries. The order of magnitude of these losses shows, for the time being, a tendency to increase and not to decrease. There is no chance that this tendency should change as long as the polarizing effects inherent in the technological revolution prevail. This tendency materializes in the worsening terms of trade. Only trade between countries of about the same development level is exempt from this tendency. Should the developing countries increase trade between themselves, they could gradually diminish their losses resulting from foreign trade. Regional interstate economic co-operation is of paramount importance for the developing countries. In a country possessing little capital and a small domestic market it is not possible to develop all branches of industry. Yet the present system of aids often contributes to the creation of parallel capacities.

f) Credits and aids should influence and stimulate economic actions in the spirit of the general economic conception prevailing in the receiver country. For the time being, however, they are seldom co-ordinated with the general conception, and aids coming from diverse sources may exert opposite effects on the economy of one and the same country.

## May a Large-scale Transformation of Assistance Policy Be Expected?

May international assistance policy (more exactly, the aid policy of the advanced countries) be expected, under the present world-economic conditions, to adapt itself better to the needs of the developing countries.

This question can, obviously, not be answered by a simple yes or no, since in our days the attitude of the advanced world to the developing countries is undergoing a rapid transformation. Aid and credit programmes, as are now being realized, would have been inconceivable a few years ago.

Rapid as transformation may be, creditors can hardly be expected to advocate bold conceptions in this respect. Hence the most adequate treatment of this question seems to be to outline long-range objectives, the achievement of which requires a moral and political pressure of the democratic public opinion of the world and of the international organizations upon the creditors, on the one hand, and, on the other, to outline constructions acceptable to them.

First thing the developing countries would need is an inflow of capital coming into their national economies through international channels and not burdening them with interests or other kinds of direct compensation. Evidently, a 50 year credit may virtually be looked upon as gratis although its effects may indirectly compensate those who had granted it. The democratic public opinion of the world and the international organizations should be mobilized in favour of this type of aid, although obviously much time is needed to have this standpoint more or less generally adopted. Until this becomes possible, we must take into account the attitudes and interests of the countries and international institutions granting credits. First, we cannot disregard the fact that the annual volume of resources made available to the developing countries has virtually not changed since 1961. With an eye on the phenomena of the international capital market at present, we cannot expect, in the near future, any new wave comparable to that of the late fifties when aids soared up substantially. The difficulties in the balance of payments of the USA, the situation in Congress and the phenomena of wartime boom rather hamper than promote the expansion of credits and aids (except those given for military purposes) granted by the chief creditor country. The official foreign aid programme of the USA shows a diminishing tendency rather than any trend towards a rise. Owing to their internal economic difficulties, Great Britain is in a similar position. France, making relatively the greatest efforts (allocating 2 per cent of her national income for assistance) is not likely to go on increasing her accomplishments. The socialist countries are known to step into a period of intensive economic growth, and this substantially increases their domestic demand of capital. Moreover, the industrialization of these countries had in the past a more or less import-saving character under the effect of cold war, embargoes and discriminations, with the result that their share in world trade is relatively low, and their surpluses in foreign currency are very limited.

As far as supplementary investment resources are concerned, Japan and the German Federal Republic are the only countries likely to possess some.

To judge from the present aspects, it does not seem very probable that the annual volume of credits and aids granted to developing countries should substantially exceed \$ 10 to 12 thousand million in the coming years.

Should the recommendation of the Geneva World Conference on Trade and Development be honoured (to allocate 1 per cent of the annual national income of all advanced countries to assistance), the funds going to the developing countries would be about \$ 14 to 16 thousand million.

The present and expectable stagnation of the volume of capital flow seems to indicate the necessity of increasing efficiency in its utilization. This, however, is hardly possible as long as bilateral credit constructions serving exclusively the development of foreign trade dominate in this capital flow.

The idea arises of making the aids international in some form or other and concentrating them on economic development. Yet it remains to be seen whether those granting aids at present—the big powers in particular—would be ready to adopt this conception or not.

Historic experience shows that even the governments are unable promptly to adopt economic actions which are not in conformity with the direct interests of the ruling classes. But if the proposed action is to be taken after a longer period of time, the chances for its adoption are better, partly because in such cases it is rather difficult to evaluate what the "direct interests" would exactly require at the time of the action, and partly because after the enduring pressure of progressive public opinion, those directly interested will be more inclined to compromises. Nevertheless in our days the political and commercial advantages that the country granting the aid may expect have a stimulating effect, but it is not known whether in the absence of such stimulation the volume of aids would remain unchanged.

Another thing to be considered is that the governments are, also in this respect, under the pressure of the masses. The taxpayers of the capitalist countries or the simple workers of the socialist countries sometimes fail to understand the necessity of granting aids to the developing world. All advanced countries have their own unsolved economic problems, their cherished conceptions whose realization must be postponed on account of the scarcity of the means, they have their masses wishing to live on a higher standard. It is to be feared that if the pressure of the masses comes up against some abstract, humanitarian considerations instead of real economic interests, the government must yield to the pressure and curb foreign aids.

It is easy to understand that, in the view of many scientists and politicians of the developing countries, it is mainly the competition of the big powers they have to thank for the present volume of foreign aid; without this competition only a fraction would have been granted.

In connection with the transfer of profits and with the activities of large enterprises operating in small countries similar problems arise. We have pointed out earlier that the US enterprises operating in the developing countries reinvest there not more than about one-sixth of their profits. At first sight it seems reasonable



to demand that the share of reinvested capital should be raised. This would certainly have some economic advantages, but at the same time it would make the big enterprises still stronger and the governments still weaker. As long as nothing compels the big enterprises to take into account the interests of the developing country they are operating in, and their agencies constitute foreign bodies in the economy of the developing country, is it wise to demand that these foreign bodies be still enlarged? If the economic life of a developing country is already largely dependent on a big foreign enterprise, is it reasonable to ask it to extend its influence over further industries and areas? It may well happen, as Professor F. Perroux says in his work quoted above (see p. 228), that the large enterprise acquires such economic power in the country as will make the independence of the national economy and even of the nation fictitious.

Thus, before insisting on reinvestments of profits, it is highly important first to clarify in some form or other the status of the large enterprises operating in the developing countries, particularly in the small ones.

It is beyond doubt that the present system of aids is obsolete and does not conform to the interests of the developing countries or to the progressive endeavours of mankind. But only by analysing the present situation and the anticipated tendencies of world economy and world politics can the question be answered how and by what mechanism we should replace the obsolete system. The problem is extremely intricate since the new mechanism must not only be more effective and co-ordinated—which could be ensured by rendering the aid mechanism more international—but also richer in resources. Hence the old mechanism cannot be replaced by any new and better system unless the sources of credit become more abundant. This, however, means that the interests, endeavours and conceptions of the economies capable of granting credits and aids must also be considered.

### The Food Problems of the Developing World

Before embarking on a sketchy discussion of the political and economic world situation with regard to the granting of aids and the growth of the developing countries, I should like to dwell briefly on a problem meriting to be in the focus of our investigations: and that is the food situation in the world in the coming decades of our century and at the turn of the millenary.

The agricultural production and the population of the world can be characterized by the figures of the Table on p. 532 for the various regions in 1958. In the Far East, in the region most seriously threatened with famine, the per capita calory intake has fallen substantially below what it was prior to World War II.

There is no doubt that the natural resources of our planet and the present technological knowledge of mankind are sufficient to multiply the present food production. Nevertheless, it remains a question whether or not agricultural production can keep pace in the coming decades, in every region and at every time, with the requirements determined by the population growth. (The per capita agricultur-

Region	Agricultural production %	Population %	Per capita production. World average = 100
Africa	4	7	60
Latin America	8	7	121
North America	21	7	316 (!)
Far East	28	53	53 (!)
Middle East	4	4	90
East Europe (USSR in- cluded)	17	10	162
West Europe	15	11	133
Oceania	3	1	583 (!)

al production between 1954/55 and 1964/65, for instance, showed hardly any rise, in fact has stagnated since 1959/60, as shown in the figure on p. 533.)

Obviously the increase of food production is partly the precondition, partly the consequence of a successful achievement of economic growth. In the economically underdeveloped regions the development of agriculture requires considerable investments and capital, yet the very rapid population growth makes the necessary increase of the accumulation capacity extremely difficult. This has two components: first, owing to the rapid population growth, a very high accumulation rate would be necessary for the growth of the national economy to exceed that of the population, second, labour-intensive techniques apt to absorb the large surpluses of manpower are an obstacle to a sound growth of accumulation capacity. If, for instance, we assume that the population grows by an annual 3 per cent, and the average capital coefficient is 5 per cent (i.e. 5 per cent of the national income must be invested in order to raise it by 1 per cent), then with a 15 per cent accumulation rate the per capita income would remain just unchanged, and 20 per cent would be necessary to raise the per capita incomes by 1 per cent a year.

The raising of hectare yields in agriculture depends on certain preconditions, of which the most important ones are as follows:

a) Appropriate crop rotation and fertilizers. According to FAO computations, hectare yields could be increased in almost every developing country by about 50 per cent by using fertilizers, by including legumes into the crop rotation and by the application of stable manure.

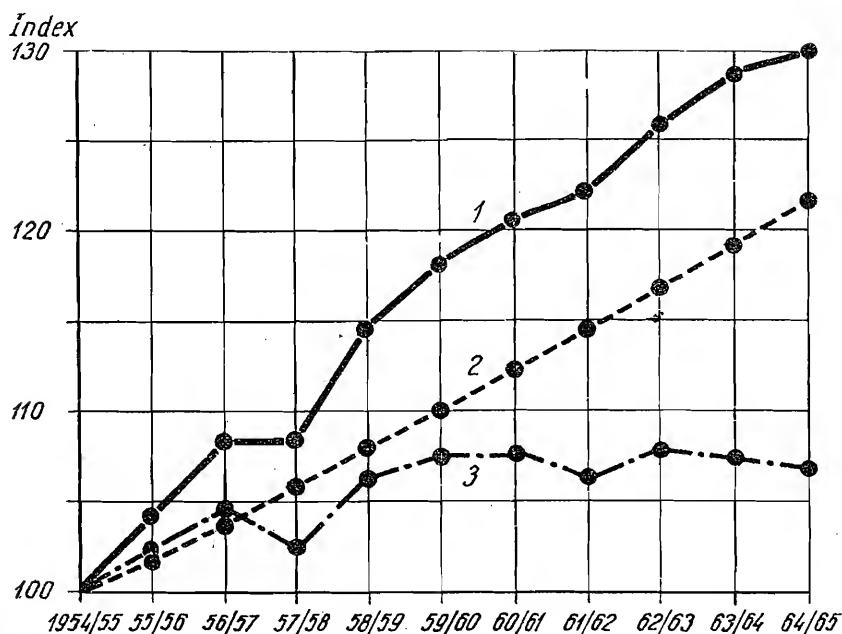
b) The extension of irrigated areas and (where this is possible) by multiple cropping. In India, for instance, by the end of the second five-year plan the irrigated area amounted to 32 million hectares whereas some 76 million hectares could potentially be irrigated according to reliable estimations.

c) Fighting weeds, plant parasites and diseases.

d) Types of mechanization that not only save live labour but increase yields.

e) Increasing or making more intensive animal husbandry.

In many parts of the world agricultural production could be increased by the simple extension of cultivated areas. According to various estimates, cultivated



Trends in agricultural production and population growth  
Key: 1 = Production, 2 = Population, 3 = Per capita production

areas could be increased in North America, in Oceania and in the Soviet Union. Also in Africa and in Latin America vast areas could still be claimed, although opinions as to the efficiency of the extension widely differ.

In the Far East where no superfluous land can be found, the only way of enhancing food production is the increase of hectare yields, and this requires considerable funds. Soil improvement, the extension of irrigation, the overcoming of plant parasites and diseases, mechanization and the development of animal farming all require capital and a vast amount of means and equipment manufactured for the purpose. But even if these or part of these are secured, it remains doubtful whether the increase in agricultural production can ever exceed the population growth.

### Gloomy Conclusions of Computations Concerning India

Let us take as an example the situation of India. According to computations,<sup>13</sup> the population is expected to grow at the following rates:

<sup>13</sup> V. G. Panse and V. N. Amble: *The Future of India's Population and Food Supply*. United Nations World Population Conference, Belgrad 1965. WPC/WP 275, p. 3.

Year	Population millions	In annual growth rate	Specific productivity	Death rate
1961	439	1.98	195	19.4
1976	625	2.55	195	15.3
1991	910	2.33	154	12.2
2006	1,107	1.85	122	12.0
2011	1,275	1.28	98	11.8

Accordingly, the population will treble within fifty years even though specific productivity will begin to decrease in twenty years from now. (It cannot diminish earlier since the present age pyramid shows the largest amplitude in the age group of 1–10 years.)

In 1961 when the population amounted to 439 million, the per capita/day intake was 2,033 calories containing 61 g of proteins as against 2,128 calories and 67 g of proteins set as a requirement by the Indian Food Committee.

According to rather optimistic estimates, agricultural production will rise from 72 million tons to 192 million tons during the same 50 years. This assumption relies on long-range considerations including the extension of the present area of arable land, the construction of large dams and terraces, the substantial increase of irrigated areas (from 32 million hectares to 76 million), a very wide use of fertilizers and the complementary investments required by development.

If this large-scale programme and its objectives are accomplished with success, in the year of 2011 the enlarged agricultural production would permit a per capita/day intake of 1,976 calories containing 50 g of proteins, that is, calories would fall by 3 per cent and proteins by 18 per cent against the 1961 level! And, for the sake of simplicity, we have disregarded in these figures the fact that the consumption of calories and proteins is different in the various layers of the population. This, however, must not be disregarded in a country where the actual intake of certain layers is not more than 1,600–1,700 calories, meaning almost permanent hunger.

### Distribution of Population and of Agricultural Production Anticipated for the Year of 2000

In order to render the problem more conspicuous we shall now quote some calculations and figures on the anticipated trends in agricultural production and in the distribution of the population of the Earth for 1980 and 2000.

The calculations rely on the following assumptions:

The annual growth rate of the world's population between 1958 and 2000 will be 1.84 per cent. This figure includes, 0.97 per cent for the advanced countries and 2.14 per cent for the developing areas (Latin America, the Middle East, the Far

East and Africa). Hence the population of the world will rise from 2,800 million (in 1956) to 4,200 million in 1980 and then to some 6,200 million by 2000.<sup>14</sup>

According to these generally accepted estimates, the population growth of the various regions can be characterized by the following figures:

*The Number of the Population (Millions)*

Region	1958	1980	2000
Africa	184	263	407
Latin America <sup>15</sup>	194	345	580
North America	192	258	324
Far East <sup>16</sup>	1,552	2,375	3,752
Middle East	107	150	215
East Europe <sup>17</sup>	322	421	513
West Europe	329	385	420
Oceania	15	23	29
World total	2,895	4,220	6,240
The share of the			
Advanced countries	858	1,037	1,287
Developing countries	2,037	3,133	4,954

In 1958 the population of the advanced areas (29.6 per cent of the world's population) contributed by 56 per cent to the world's agricultural production, while the population of the other areas (70.4 per cent of the total) secured 44 per cent of the agricultural production.

At present, under the impact of the economic forces now operating in the world, agricultural production is rising more rapidly in the advanced countries than in the developing ones. The possible difference between the growth rates in the two spheres is taken to be one per cent in the first variant and two per cent in the second. The impact exerted by these differences upon the per capita agricultural production in the various regions is shown in the table below (p. 536).

One of the determining factors of the world's agricultural production and food consumption is grain (i.e., cereals, rice, maize, millet, etc.) contributing to the major part of human calory intake as well as a part of animal fodder.

From the data and estimates relating to the present grain production we have computed the per capita production in the different regions. We shall rely again on our assumptions used for our variants, to wit, on assuming the difference between the development rate of the two regions to be one and two per cents, respectively.

We have, naturally, disregarded the structural changes that can be expected in production since they would yield incomparable figures. (By structural changes

<sup>14</sup> On the basis of UN estimates.

<sup>15</sup> With Central America.

<sup>16</sup> With Japan.

<sup>17</sup> With the Soviet Union.

Region	Per capita agricultural production world average = 100				
	1958	if the difference in growth is			
		one per cent <sup>18</sup>		two per cent <sup>19</sup>	
		1980	2000	1980	2000
Africa	60	56	48	50	37
Latin America	121	87	68	74	51
North America	316	375	473	407	535
Far East	53	44	36	38	27(!)
Middle East	90	100	89	89	69
East Europe	162	185	243	200	274
West Europe	133	178	263	194	297
Oceania	583	660	700	700	790
World total	100	100	100	100	100
The share of the					
Advanced countries	189	237	318	256	360
Developing countries	63	52	43	46	33

we mean that, on the basis of the present price and value relationships, the economic units operating in the advanced countries will probably prefer the crops yielding higher incomes per unit area.)

If we assume that total grain production will grow by 4 per cent a year in the advanced countries and by 2 per cent in the developing ones, the per capita grain production of the advanced countries would rise from the present 570 kg to 1,967 kg in the year 2000. In the developing countries, however, the per capita grain production would fall from the present 183 kg to 172 kg in 2000.

The upper Table on p. 537 shows the relevant figures.

Protein production is very unfavourable as of today. A much larger part of the needs in calory is met by the consumption of proteins in the advanced countries than in the rest of the world. The per capita protein production is 8.3 to 1 as against the 3 to 1 for grain production (see the lower Table on p. 537).

By using the growth variants applied in calculating the grain production, the disproportions assume shocking dimensions in the coming decades (30 : 1) and between the extremes (Oceania and Far East) differences as high as 110 : 1 will appear.

Nowadays, there is an extremely acute contradiction between the tendencies of population growth and the distribution of the economic power factors. This contradiction should be bridged by accelerating the economic growth of the developing countries, to prevent the failure of the growth processes and the concomitant crises from leading to extreme political tension.

<sup>18</sup> Counting a 3 per cent growth for the advanced countries and a 2 per cent growth for the developing ones.

<sup>19</sup> Counting a 4 per cent growth for the advanced countries and a 2 per cent growth for the developing ones.

	Per capita grain production (kg)	Per capita grain production (kg) if the total grain production rises annually by							
		4 and 3		3 and 2		5 and 3		4 and 2	
		per cent in the advanced and developing countries, respectively							
		1958	1980	2000	1980	2000	1980	2000	1980
Africa	205	275	320	222	213	275	320	222	213
Latin America	223	239	257	193	171	239	257	193	171
North America	1,069	1,883	3,280	1,522	2,185	2,328	4,923	1,883	3,280
Far East	162	202	230	163	153	202	230	163	153
Middle East	379	517	650	417	433	517	650	417	433
East Europe	601	1,087	1,953	879	1,301	1,345	2,931	1,087	1,953
West Europe	244	493	989	398	659	610	1,484	493	989
Oceania	647	1,000	1,731	809	1,155	1,235	2,597	1,000	1,731
World total	297	443	611	358	207	508	814	410	542
From this									
Advanced countries	570	1,064	1,967	860	1,311	1,316	2,953	1,064	1,967
Developing countries	183	227	259	183	172	227	259	183	172

	Per capita protein production (kg) 1958	Per capita protein production (kg) if the total protein production rises annually by							
		4 and 3		3 and 2		5 and 3		4 and 2	
		per cent in the advanced and in the developing countries, respectively							
		1980	2000	1980	2000	1980	2000	1980	2000
Africa	48	65	75	52	50	65	75	52	50
Latin America	101	108	116	87	77	108	116	87	77
North America	318	560	976	453	650	693	1,465	560	976
Far East	18	22	25	18	17	22	25	18	17
Middle East	117	159	200	129	133	159	200	129	133
East Europe	254	460	827	372	551	569	1,241	460	827
West Europe	276	558	1,119	451	746	690	1,680	558	1,119
Oceania	720	1,113	1,928	900	1,283	1,374	2,893	1,113	1,928
World total	108	168	241	136	160	200	342	162	228
From this									
Advanced countries	285	532	985	430	656	658	1,478	532	985
Developing countries	34	42	47	34	32	42	47	34	32

Within the very complicated problems of economic growth the food supply plays a particularly important role. Not only because no permanent economic development is possible if agriculture stagnates or fails to develop at a proper rate but also because at present there are impermissible differences between the nutritional levels of different parts of the world's population. The greatest danger is

increased tensions and dangers will have to be reckoned with in both world politics and world economy.

If our intention is to create world-economic conditions for the acceleration of the growth of the developing countries, we must choose between two alternatives:

a) to replace the old mechanism of world economy by a new, contemporary one; and such a conscious and organized decision can, obviously, not be made without the consent of all participants of world economy,

b) to establish new funds and means to be handled apart from the operation of the present mechanism. These are then regularly forwarded to the developing countries to render their growth more even more rapid and more reliable.

## Changes in the World Economy

The present mechanism of world trade developed in the period of free capitalist competition. The present state of the international division of labour is still bearing the stamps of the colonization period when the governments of the advanced capitalist countries directly imposed their will on the colonial countries. On the other hand, the leading capitalist countries developed an economic structure and a market power that determined the possibilities of economic development for the colonial countries. In these, mainly the production sectors producing for foreign markets were favoured whereas economic activities that could have contributed to the domestic market and living conditions failed to develop.

During the past two decades most of the former colonies have acquired independence. Today, except for rare cases, the leading capitalist countries are no longer given the opportunity directly to impose their will on their former colonies. Nevertheless, the economic power relations and the structural differences inherited from the past, such as the contemporary economic structure of the advanced countries and the distorted, frequently monocultural structure in the developing ones, still survive and exert their influence. The economic consequences of colonialism subsist many decades after the legal liquidation of colonialism.

All well-meaning people must admit that the liquidation of these disparities cannot be expected from the prevailing mechanism of world economy which one-sidedly favours the economically stronger partner.

Monopoly capitalism has multiplied the market power of the advanced countries as compared with that of the weaker partners. The large monopolies trading with the developing countries are today in a position to dictate the prices, the amount of export goods to be produced and the costs alike. (And, as costs include taxes, they are able even to determine the level of the latter and thereby the budget incomes of the developing countries.) Under such conditions the profit—as Prof. F. Perroux puts it—is no longer a purely economic category because it is heavily affected by power elements appearing among the factors of economic life. (Abstract theories naturally disregard this fact.)



The advanced capitalist countries have, in their own economic life, adopted many reforms radically contradicting the rules of classical capitalism that had prompted the development of the present-day world market mechanism. The redistribution of incomes has become generally accepted by means of taxation, the state recurs to a variety of methods to influence the development of the different industries and their conditions of the competition on the world market, and also a considerable state sector is being created, to mention only the most outstanding changes.

The participants of the world market have also changed; in a considerable part of the world socialist economies were born whose laws governing domestic economic activities widely differ from the present mechanism of the world market. Socialist economic policy determines the development conceptions centrally, shaping accordingly the economic environment influencing the enterprises, then allows a certain elbow room for the free play of the centrally initiated or affected forces.

The share of the socialist countries and of the developing countries in world trade is somewhat above 30 per cent.

### Who Benefits from the Present World Market Mechanism?

World economy is not an automatic mechanism moved by forces independent of man but is the arena of a permanent struggle of human beings for the definite objectives of a better, richer and more beautiful life. Viewed from this angle it becomes evident that investigations should find an answer to the question: what part of mankind benefits from the present world market mechanism?

No doubt, the present world market mechanism favours mainly the advanced capitalist countries which possess the majority of the world's incomes, of the invested capital of the foreign currency and gold reserves and of the transport capacities. Huge monopoly enterprises dictate the prices on the market (naturally within the well-known limits) and provide the large majority of world trade. In addition to this, as becomes evident from the statements formulated on many international conferences, beside preaching trade liberalism they pursue protectionist policies.

It is also quite clear, as we have said earlier, that the present system of exchange of goods favours the economically stronger partner.

Starting from these considerations, we come to the conclusion that some 24 to 25 per cent of mankind (including also Japan) benefits from the old market mechanism.

Further investigations would be necessary to find out what layers of the population of the advanced countries actually benefit from the existing world market mechanism. The protectionist restrictions and the international monopolistic prices obviously favour the interests of a rather narrow layer. A deeper investigation into this problem would, however, lead us far off the track of our monograph.

The socialist countries cannot be counted among the beneficiaries of world trade; they have no foreign investments, have no such large world firms as

could dictate prices, their share in world trade is relatively small (10 to 11 per cent) and have a very restricted influence on the international money market.

Thus we are quite right to say that the present world market mechanism fails to help 75 per cent of mankind to accelerate their economic development by making use of the possibilities inherent in the international division of labour.

A complete reshuffle of the present world market mechanism would require the consent and concurring actions of all concerned. A mechanism that would serve the interests of the developing countries and would be acceptable also to the capitalist countries has not yet been constructed or conceived. Nor is it probable that a change of a paramount importance could be brought about on the basis of a single great plan by common consent, a change that could rightly be considered a fundamental turn in the history of world economy. Yet it is evident that the existing world economy has created certain objective forces which display tendencies promoting the gradual evolution of a new world-economic mechanism. A large number of such factors could be enumerated but we confine ourselves to mention only the essential ones:

a) the extremely disproportionate distribution of the material and intellectual forces in our world, hampering and preventing the development of the majority of mankind,

b) the fundamental contradiction between the material and intellectual forces and development energies, on the one hand, and the distribution of the population, on the other, which is bound to become the greatest problem of the coming decades,

c) the demographic revolution which will double the population of our planet in the last decades of this millenium and make it inevitable to resort to a more rational treatment of the natural and human resources,

d) the rapid increase of the number of independent national economies; this makes it increasingly evident that the decisions considered as rational from the national economic point of view may lead to serious irrationalities on the regional, continental or world-economic level,

e) the increasing contradiction between the integration tendencies of economic life and the relative smallness of most new countries: today there are more than 100 countries in the world with populations below ten million, and of these, at least 15 have populations of less than one million,

f) the development of communication and of the intercourse between peoples which has rendered the internal living conditions of certain peoples competitive; today the man in the street in Africa or Asia not only lives under conditions much inferior to those in West Europe but is also given to understand this in a very demonstrative manner and in many different forms (film, television, education, literature, press, travels, etc.); never in history have the living conditions of the different peoples been so very diverse, and this diversity has never been so conspicuous and exasperating as today,

g) the unprecedented pace at which technology and sciences develop increasing both the possibility and the necessity of intellectual intercourse and material contacts between the peoples.

The existence and the effects of objective factors requiring the gradual creation of a new world market mechanism do, naturally, not imply the possibility of establishing such a mechanism overnight or within a short time. The presence and the influence of factors impeding and hampering the establishment of the new mechanism must be taken into account.

Let us examine some of the negative factors:

a) The simultaneous presence of three different conceptions of world economy. Although the evolution of new elements and conceptions, i.e. the creation of the socialist and developing countries represent the decisive driving force towards the new world-economic mechanism, the simultaneous existence of the three different conceptions represents a drawback since, in addition to the objective economic tendencies, also the interests of the participants and the international power-political aspects must be taken into account. The coexistence of three world-political conceptions is the principal characteristic of the present economic and political situation of the world, whence the relevant problems will have to be discussed in detail,

b) The national economies will, for a long time to come, form the foundation and framework for the economic activities of mankind. That is why the new world market mechanism cannot be brought about without the consent of the national economies concerned.

From the past century up to our days history has convincingly proved that every nation must labour through its own difficult and painful process of economic growth. No people will accept a more advanced economic system if it is imposed on them by violating their national feeling and pride.

The requirement of economic integration and of a new world-economic mechanism, on the one hand, and the existence of separate national economies, on the other, constitute a natural contradiction, yet it would be a mistake to presume that only relations and institutions created deliberately and rationally are of importance, and the emotions of the nations and, in general, of large masses can be neglected.

The emotions of the individual human being evidently constitute a subjective factor, yet the identical emotions and decision of millions of people represent a tremendous power which is to be respected by everyone.

It follows from what has been expounded that we do not look upon the existence of separate national economies as a factor to which all other factors and relations are to be subordinated, since this would necessarily lead to national selfishness and world-economic anarchy, yet we regard it as an essential fact that should always be weighed in accordance with its significance.

### New Outlook—New Mechanism

In spite of all these difficulties it is quite clear that a new conception of world economy should be adopted in all major questions of importance for the future of world economy and of the developing countries. An approach to, or outlook on,

economy means the establishment of a completely or partially new mechanism creating new types of interests. The new mechanism and the new interests then turn the functioning of the economy in new channels.

Of the elements of the new approach I wish to stress here only the most important ones:

- a) the necessity of a new international division of labour,
- b) the indispensability of redistributing goods, services and incomes in world economy,
- c) the inevitability of internationally co-ordinated actions for solving the food problems of the world.

The international division of labour imposed in the colonial period first by the application of political and military constraint, later through economic power has gone bankrupt. The old world-economic mechanism is unable to change the situation. At present the developing countries can export only a few raw materials (including oil) in addition to tropical foodstuffs. On the other hand, they are compelled to import investment goods, means of transport, sizable amounts of industrial consumer goods and a still growing quantity of agricultural staple goods from the advanced world. This kind of division of labour will, obviously, lead to an absurd situation, sending the balance of payments in the developing countries gradually further off its equilibrium instead of restoring it.

It is therefore of great importance to enable the developing countries to export also goods other than raw materials and tropical food to the advanced countries.

The markets of great absorbing capacity of the advanced countries may give significant impulses to the industrial export capacities of the developing countries. This new division of labour must, however, be the outcome of conscientious and rational economico-political decisions made in the spheres preceding the processes of exchange, i.e. in the spheres of investment and of production. These decisions should be taken on the initiative of international organizations on bilateral or multilateral bases.

Such conventions would have real foundations; between 1960 and 1964 industrial exports constituted the most dynamic sector in the exports of the developing countries. In this period, their light-industry export rose by an annual 8 per cent.

For the advanced capitalist or socialist countries this kind of export causes no serious problem. At present the industrial exports coming from the developing countries amount altogether to not more than 1 per cent of the consumption of light-industry articles in the advanced capitalist countries and corresponding to not more than 5 per cent of their aggregate imports, still a very low proportion indeed.

Some kind of redistribution of goods and incomes is a basic prerequisite of the entire development of world economy, and of the accelerated growth of the developing countries. This postulate—a *sine qua non* of the solution of the economic problems of the world—has been recognized in a very wide sphere. The system of international assistance—imperfect and unadvised as it may be—is itself a proof of this recognition. In the previous chapter we have described the quantities of this flow of means and have collated the outflowing amount with the incoming funds.

We have seen that the present situation is not satisfactory, and a new or at least an essentially modified world market mechanism is indispensable.

And finally, analysing the food problems of the developing world, especially of the Far East, we have come to the conclusion that the difficulties cannot be definitely overcome by food imported from the advanced countries. The task is to raise the agricultural production of the developing countries, but this requires the concentration of vast amounts of intellectual and material energies, and this concentration must be planned on a world scale. All these actions should obviously be well designed and co-ordinated. We shall later come back to the questions of the organizational solution of international planning and co-ordination. Here we only want to point out that the rational economic actions on the international level are to be performed under concrete conditions, i.e. in the presence of three different world-economic conceptions and a growing number of national economies.

### The World-economic Conception of the Socialist Countries

The simultaneous existence in world economy of three different conceptions proves that the 19th-century unity of world economy has dissolved. This fact should be regarded as a process advantageous for the world as a whole since the earlier "unity" of world economy relied on the leading capitalist countries which imposed their will directly or indirectly on the other parts of the world through the present mechanism of the world market and through their own economic power. It is beyond any doubt that the leading capitalist countries still exert a very strong influence on the activity of the international economic organizations, and the mechanism of the world market has hardly changed. Hence the advanced capitalist countries will, for a long time to come, be able to influence the economic growth of the developing countries through bilateral, multilateral or institutional channels.

The present superiority of the advanced capitalist countries does not change the fact

- that new economic systems have been created in world economy which deliberately reject the capitalist road and norms of economic development (the socialist countries), and

- that the capitalist economic system cannot solve the problems of growth and development on the national level, and even renders these problems more serious on the international level.

The advanced capitalist countries must admit that, beside objective economic and political conditions, the new power centres evolved in the world economy and politics of our days require the creation of a new or at least improved world market mechanism. That is why they hope in vain to restore the unity of world economy taken in the old sense of the term and in conformity with their own interests.

Socialist economy exists only in part of the world, its development perspectives are good, yet its present resources suffice only for a limited influence over the world-economic processes. (What we have in mind are exclusively economic resources, since the political influence and the military power of socialism is well known to be

far superior to its present possibilities of economic influences.) The socialist countries, at the beginning, did not raise the question of essentially improving the present world market mechanism or its replacement with a better one since they were convinced that even without this, owing to the power of the socialist economic system, they would be able to achieve a rapid economic development. Their hopes have indeed come true, so that their internal situation does not require a radical change of the world market mechanism.

Yet the behaviour of the socialist countries is not determined exclusively by their own internal problems but also by the responsibility they feel for the fate of the world. In spite of this, no "socialist conception" has been evolved so far to replace or substantially improve the present world market mechanism. This, in our opinion, can be traced back to two decisive reasons:

a) the leading capitalist countries have from time to time boycotted, and imposed embargo on, the economic relations with the socialist countries and under such conditions, even the extension of trade achieved on the traditional world market was regarded by them as a progress and achievement,

b) under the assumption that the world will anyway turn socialist within a reasonably short time (say, in about two generations) and, with this, also the trade relations and the world-wide distribution of resources will anyway be based on new foundations, the socialist countries regarded the existing world-economic situation and the inherited system of trade relations as transitional within which only some *modus vivendi* was to be sought for; the new organizing forces were expected to be born not in world trade but from the radical transformation of world politics.

In the meantime, however, it has become evident that

- the period considered as transitional for the spreading of the socialist system will be longer than presumed earlier, and
- the growth problems of the developing countries make it inevitable to undertake a reform of the world market mechanism during the period preceding the spreading of socialism. In other words the solution of certain major problems cannot be postponed until socialism triumphs over the whole or most of the world.

Experience shows that the postponement of questions requiring solution—however logical the reasons of the postponement may be—creates a vacuum in which actions are undertaken by others in one direction or other. Hence postponement is equivalent to loss of the initiative, and the dynamic forces cannot afford this.

### The World-economic Conception of the Developing Countries

The world-economic conception of the developing countries—first shaped at the Geneva World Conference on Trade and Development in 1964—has also developed in its outlines. The essence of this conception is the necessity of having a world market mechanism to promote the economic growth of the developing countries and to help liquidate the disparity in the distribution of the material and intellectual energies, which endangers the future of mankind.

Following the achievement of independence exaggerated optimism began to prevail in most developing countries, and made the statesmen believe that the economic problems could be solved comparatively easily and within a short time. This is quite natural since the leaders of the independence wars could not be expected to foresee and predict all the difficulties, problems and dangerous turns of economic growth.

Since the appearance of the growth difficulties the recognition has asserted itself that the growth of the developing countries cannot be accomplished without a new or at least substantially improved world market mechanism.

Not even all progressive-minded circles understand that the horizontal differences (the differences between the countries concerning their economic level, say, their per capita income) are increasing and becoming more and more acute all over the world. It naturally does not follow from this statement that the vertical differences (between social classes and layers of the same country) have essentially changed or are disappearing. There is no doubt that in the advanced industrial countries—owing to the struggle of the progressive forces or to their ascent to power—poverty has disappeared or is disappearing. In the developing countries, however, the social differences are still growing since, beside the feudal elements, the capitalists have also made their appearance, while the fate of the day-labourers, small farmers or tenants and of farmhands has not improved. The continued presence of the vertical differences, however, is no reason for neglecting the new phenomenon of growing horizontal differences in the incomes of people belonging to the same profession depending on whether they live in industrially advanced countries or in underdeveloped ones. Hence it is quite understandable that the majority of the public opinion in the developing countries expects a real change of the situation from decreasing the horizontal differences.

On the other hand, an internal social reform, i.e. the decrease of the vertical differences, is a precondition of the reduction of the horizontal ones. It is well known namely, that the former ruling classes, i.e. those benefiting from the vertical differences, are ready to compromise with the foreign capitalists and the neocolonialist powers, so that the lack of social reform would seriously hinder economic development. When stressing these circumstances, let us remember that the increase of the horizontal differences is a new feature in world economy and world history which all progressive movements should duly consider and study; without this they would be confined to ostrich policy.

The struggle between the three economico-political conceptions, i.e. of the power concentrations behind them is centered around the problems of the new world market mechanism. The fronts are, naturally, more complicated; while in the advanced capitalist countries there are institutions and organizations advocating the new conception, in the developing world we find strong supporters of, and many elements indifferent to, the old order of things.

Generally speaking, however, among the forces fighting for the new world-market mechanism we find, in the first place, the developing countries whose political energies and international weight are increasing. Also the socialist coun-

tries advocate a more equitable distribution of goods, equal rights for the nations, the liberation of the oppressed; they are against the monopolies in wealth, trade and power all over the world. We may add to these concerted forces the progressive people in the advanced capitalist countries who fight against monopoly capitalism and against the neocolonialist endeavours of their own governments.

And to this camp should be assigned all those who, for various considerations, governed by humanism, solidarity and rationalism, advocate the cause of improving the situation of the developing countries and are guided by new world-economic principles. Since the recognition of the grave situation of the developing countries and of our world economy as it is at present is becoming a constituent part of human thought, this insight can no longer be disregarded as a modifier of the power relations.

### Opponents of the New World-economic Conception

Aligned against the new world-economic conception are the monopolistic elements of the advanced capitalist countries, the government agencies they have managed to bring under their influence, the conservative elements of the educated layers and—last but not least—all those obsessed with beliefs of racial supremacy. Adherents to this policy are all the anti-communist or revanchist elements eager to maintain the state of cold war and hoping to make advantage of the outburst of a new hot war. In these circles, the disdain for other races, chauvinistic-nationalistic prejudice and conceit combine with the hatred against any progressive view.

The power of this camp must not be underestimated. The point is to what extent it is able to influence the governments and the public opinion of the given developing country.

These quarters will challenge, in the first place, the partisans of the new world-political and world-economic conceptions including the governments sympathizing with these. They hope to create—by misunderstanding deriving from their provocations—a situation where, under the subterfuge of “national emergency”, all internal resistance, all sober opinions and reasonable arguments can be silenced by force. In such cases the political forces having but the slightest hope of success will be grouped according to the foreign forces they may rely upon, rather than according to their internal political and economic conceptions.

### What Political and Economic Actions Should Be Initiated by the Progressive Forces?

The progressive forces must initiate well co-ordinated and circumspect political actions permitting them to assert their rational and moral supremacy. These general political and economic actions should be carried out



- without allowing the political and economic struggle to lead to civil or international conflicts,
- without allowing the political struggle to create acute international tensions that would further increase armament spendings which are anyway disproportionate. In 1966, the world spent nearly 200,000 million dollars for armament, a sum roughly equivalent to the aggregate annual national income of all developing countries.

It is not easy to comply with these requirements since, besides elements ready to threaten human civilization with final destruction in order to ensure privileges or profits of their own, there are also people who are threatened more closely by death from starvation than by nuclear death.

In connection with the latter problem, let us remember that the contradiction inherent in the unequal distribution of economic resources and populations cannot be eliminated by war. History has furnished many an example to prove that wars initiated with the intention eliminating such kinds of contradictions did not prove economically useful whenever the economic standard of the defeated country was higher than that of the conqueror.

Let us remember the example of the Ottoman Empire which ruled for centuries over vast areas yet was the poorest country and "the sick man of Europe". Colonial conquests proved economically successful and gave an impetus to the economic development of the colonizing countries only when the industrial societies of these were able to absorb and utilize the economic resources of their colonies.

At present, however, the situation has substantially changed as compared with the 19th century, when the colonizing countries drew the greatest profits from the comparative natural advantages of the conquered countries. In our days, however, the comparative advantages rely on the technical-scientific standards and on the advanced economic organization rather than on natural endowments. The profit deriving from such comparative advantages cannot be taken away or expropriated.

Hence, the postulate of economic growth is inevitable; and once it has mobilized the material and intellectual energies of a country, territorial conquests are rendered unnecessary.

As has been mentioned earlier, a growing part of public opinion in the developing countries believes that international tension, i.e. a rivalry between the great powers, is useful for the developing countries since without this they would not even get as much assistance as they are actually getting. These views do not seem to be correctly founded since they take into account only one aspect of the rivalry between the great powers. When international tensions grow, it is obvious that material and intellectual energies are increasingly allocated to armament; and if the amount assigned for armament purposes is extremely high, less will be left for assisting the developing countries. Armament spendings can no longer be considered as exclusively material or financial problems since a large number of outstanding scientific workers and institutions are known to conduct investigations of scientific, technological, economic and organizational problems raised by the armament race. Thus, when this is intensive, the quantity and the efficiency of

the technical assistance afforded to developing countries must necessarily diminish.

The actions of the progressive political forces should be carried out without causing even a transitional set-back of the human and material sources of economic growth. Instead, these sources should increase parallel to the capital-absorbing capacity of the developing countries. In the political struggle for economic independence and social progress, elastic methods should be applied which, while essentially serving the interests of the country, also ensure a certain degree of interest for the advanced world. It should be remembered that the huge economic resources of the advanced capitalist countries are indispensable for the economic growth of the developing countries. Moreover, the small developing countries are not in a position to build up and maintain very large enterprises when they must rely on their own resources because they do not own the necessary capital, the processing industries, the means of transport and, last but not least, they are not able to conquer and hold the markets. We naturally condemn the division of labour as evolved in the colonial period but are unable to eliminate its consequences overnight. Another fact that is rather difficult to change within a short time is that the international money market is governed by the advanced capitalist countries.

For example, it is known that most countries hold dollars and/or pounds as currency reserve, so that when the balance of payments of the United States or Great Britain shows a deficit, they can, up to a certain extent, fill up the gap by the export of banknotes, thus greatly contributing to "world inflation". This practice has often been objected to, yet without any considerable results.

Their situation should prompt the developing countries to make a united political front in these matters, to set up their own organizations in some form, permanently to collaborate with the progressive forces capable of exerting substantial political, and sometimes economic, pressure in order to have the situation changed. In addition to this, the international organizations should oppose more efficiently such practices of the advanced countries as would handicap the developing countries on the world market of goods, services and money.

If, owing to all these circumstances, the developing countries are unable to make the advanced capitalist countries and the large monopolies interested in their economic growth, then the material means necessary for the latter will not be available, growth will slow down resulting in serious political consequences.

Should the advanced capitalist countries fail to recognize the new situation and to contribute to the reform of the world market mechanism, should they want to humiliate the young countries or threaten their independence, then by a series of local defeats, increasing disappointment and hatred they will be at last compelled to change their activities and conception. Any defeat sustained anywhere by the aggressive circles propagating cold war will necessarily strengthen the position of the political forces understanding the realities of the age; and these will act to defend the independence of the developing countries.

It can clearly be seen from these circumstances that mankind must face very great dangers in the form of contradictions inherent in the distribution of the

economic resources and of the population. It is beyond all doubt that this contradiction must be liquidated in the interest of a peaceful and better future of mankind. The forces of history will not fail to bring about a solution in some form. The forces concerted to this end are present and acting, irrespective of to what extent we recognize them. Our only choice lies in deciding in what manner to face these elementary forces. They may be faced in a rational manner, i.e. canalized into the large flow of a dignified human life, or in an irrational manner, i.e. left to themselves and to fate without heeding when and in what form they explode into the reality of the present world.

### Is It Possible to Act Rationally on the International Level?

The question may be raised whether it is at all possible to find a rational solution.

History can quote very few precedents when those who possessed ample economic power (capital, incomes, intellectual capacities) yielded part of their resources to those who had insufficient means. Those possessing, fail to have the necessary insight since they look upon their being amply provided as the natural order of things or as the fruit of their own labour and, equally, consider either as a natural phenomenon or as a fact, due to the lack of industry or thrift in other peoples, that these live in penury.

In the present world situation the problem is not enough simply to have an insight, i.e. to recognize that the present situation is no longer tenable. There are serious power factors in our world that are able to accomplish planned, co-ordinated and purposeful political actions, to exercise pressure on international public opinion. They endeavour also to influence the international organizations in favour of shaping the new conceptions according to their interests. It is of tremendous importance that the progressive part of public opinion in the leading capitalist countries rise in opposition against these monopolistic circles and bring a serious pressure upon them.

The means to be applied are peaceful, they do not differ from the usual means of political struggle conducted on international and national levels. They range from persuasion to the creation of moral and political emergency situations always with the purpose of showing the untenability of the political *status quo* and the necessity of accepting radically new conceptions.

No doubt, powerful forces fight for the new conceptions, and it is also evident that these conceptions embrace all such economic factors as are ready to accept the principles of the new world market mechanism. In this view, the prosperity of others is everybody's interest. The possible economic crises evolving in the advanced countries will inevitably curb their efforts to help the developing countries, on the one hand, and the possible growth crises, stagnation and economic disturbances in the developing countries endanger the equilibrium in world politics and world economy achieved at the price of so many heavy efforts, on the other.

Theoretically it is possible to plan actions rational in the world-economic and world-political sense. Yet in practice the implementation of such plans will be pregnant with tactical difficulties and tensions.

The one-sided, short-sighted and, frequently, violent steps taken by those possessing greater economic and political power may provoke particularly dangerous situations. These situations may increase the feeling of frustration and exasperation of those who have nothing to lose.

### Specific Forms of Economic Conflicts

The situation is complicated by the fact that the economic conflicts usually do not appear in their "pure form" in the minds of the people. The past decades have produced a host of cases when exhausted masses struggling with diseases, poverty and starvation started fights against one another for religious or linguistic causes or for border territories. There is always a danger that the economic conflict takes shape in the minds of individuals, groups or communities as racial, religious, etc. contradictions. And this danger is enhanced by the fact that most developing peoples of most countries have been humiliated in the past on account of their not belonging to the white race. It would, certainly, be a mistake to equate the motives of the monopolistic capitalists with those of the masses driven to exasperation, because the former defend illegally acquired privileges they have enjoyed to the detriment of others, whereas the latter fight for the minimum of human rights. Fully aware of these facts, however, it is necessary to stress that distortions in the judgement and actions of the various racial, religious etc. groups or communities rather hamper than promote the economic growth of the developing countries.

### Reformed World Market Mechanism

To conclude, I wish to deal with the problems of a new or reformed world market mechanism. We have so far tried to prove that the liquidation of the contradictions existing in the disproportionate distribution of the population and the economic resources over the world (and what we have in mind here is more than the mere resources because we include also the extent and level of economic activities based on these resources) requires a new world market mechanism. *Mutatis mutandis* the problem could be collated with that of the less advanced areas in certain countries of Europe. The efforts made to develop the South of Italy have clearly shown that the old market mechanism is an obstacle in the way to the solution of the problem.

Obviously, the contradiction between the population and the economic activity can, even within one and the same country, not be solved by using, in the first place, such means as the transfer of manpower. We may perhaps assume that man-

power imported from the developing countries could solve—at rather high costs—the problems of labour supply in the West-European countries. Yet, from the point of view of the developing countries, the export of manpower would result only in a transitional reduction of unemployment and in a doubtful advantage in the acquisition of skill. It cannot bring about a solution of the contradictions between population density and the intensity of economic activities. Nor is it very likely that a developing country will develop exactly the industries for which its migrating manpower acquires a qualification in the advanced countries.

The old world market mechanism—as we have shown several times and from several angles—does not reduce but enhances this contradiction. What we need is a new mechanism promoting the gradual liquidation of this conflict, i.e. one which is able to create a new international division of labour. The term “international division of labour” is used here in its broadest sense since we understand by it not only the fact that machines are manufactured in one country and tropic food in another but also the distribution of up-to-date economic activities among the continents and regions in proportion to their population. An international division of labour proportional to the economic resources and to the population of the various countries should manifest itself not only in the economic activities whose products are being exchanged but also in those not yielding exchangeable products.

We shall now try to define the means which can be made independent of the old market mechanism, and with which a new international division of labour could be established. Yet before analysing these means we wish to emphasize it once more that these measures should be undertaken in a manner

- to accelerate the economic growth of the developing countries;
- reckoning, at the same time, with the interests and power position of the advanced capitalist countries as well as of the big capitalist enterprises as regards both long-term and short-term measures (it may, naturally, be presumed that with the progress of the democratic forces, i.e., of their struggle fought for the “democratic alternative”, and with the creation of the conditions for exercising control over the big enterprises, this co-ordination will become easier in the future);
- to encourage the international organizations to take a more active part in shaping the new division of labour, to support their creative initiatives and to allow ample room for the development of their control activities.

It should, finally, be noted that these measures, prescriptions and incentives cannot be identical in every respect. Namely, even identical measures may elicit very different reactions from national economies on different levels and embodying different economic systems. What is needed for influencing the economic processes is not a generally uniform but a coherent, co-ordinated and mutually complementary system of measures.

## The Role of International Organizations

Today the international organizations fail to fulfil their tasks in the true sense of the word, and often keep aloof from the most important questions. This attitude is due to the misunderstanding of their role, to being unilaterally influenced, and to a certain bureaucratism deriving from a kind of organizational self-sufficiency. But the well-known weaknesses of the present international organizations do not alter the fact that the problems can only be solved by international organizations having an effective and adequate authority. Evidently, what we require is not only an improved efficiency of the international organizations but also that their work should be based on the principles of universality and equality of rights of all peoples. Mankind will confide only in such organizations.

## The New Division of Labour Cannot Be Built Exclusively on the Control of the World Market

Developing countries poor in development energies can naturally not afford to allocate their resources to developing branches the products which may later turn out to be unmarketable. That is why it is important, first of all, to determine the commodities that are suitable for increasing their exports after an appropriate regrouping of world trade and for the conclusion of bilateral or multilateral trade agreements. We wish to emphasize that, in the main, we have in mind finished goods rather than the traditional export products (tropical foodstuffs and raw materials) of the developing countries.

Most suitable for this purpose today and in the near future seem to be the products of the light industry. There is a domestic demand for them, on the one hand, and, on the other, the building up of the light industries does not require too large investments or a highly advanced level of economic environment and infrastructure. The necessary manpower can easily be trained and the relatively low wages represent a comparative advantage in export.

The production of the processing industries in the advanced capitalist countries amounted to \$ 400,000 million in 1964 corresponding to 35 per cent of their gross national product. The share of the light industry was around 37 per cent of the processing industry. The foreign-trade balance of the advanced capitalist countries shows an approximate equilibrium for the products of the light industry. It seems that in 1964 their own consumption in light-industrial products must have been around \$ 150,000 million. Between 1958 and 1964 this consumption rose slower than the average, showing an annual increase of 3 per cent.

At present the developing countries export annually about \$ 1,500 million worth of light-industrial consumer goods into the advanced capitalist countries. Thus, their share in the light-industrial consumption of the advanced capitalist countries is 1 per cent.

If long-term investments were made and foreign-trade agreements were concluded between the advanced and the developing countries, this export could be easily doubled within a few years.

Viewed from the angle of the long-term conceptions of economic policy, the advanced countries would derive the following advantages from such agreements:

a) part of their manpower employed in the light industry would be released for the "dynamic" industries, the building industry and the services, whence some of the costly import of foreign labour could be saved,

b) their export possibilities for investment goods would increase, an obvious advantage since the production of investment goods has a stronger multiplier effect.

Such kinds of agreements could, in our opinion, be concluded also with the socialist countries. These agreements could be either bilateral or multilateral, would or would not include the granting of investment credits, would or would not prescribe the favouring of the export of the advanced partner. Whatever the forms would be, the essential point remains the same: a new division of labour evolving on the basis of the agreement.

It is, naturally, important that the bilateral or multilateral agreements should be registered with an international organization and that this organization be well aware of the amount and the expected impacts of the investments already undertaken in the light industry of the developing country in question. Failing to do so, overproduction may ensue, resulting partly in the sub-optimal efficiency of investment and partly in problems arising in the balance of payments.

Evidently, such types of agreements can be conceived also in sectors other than the light industry.

In the course of this structural transformation the interests of the advanced countries have been considered on the national-economic level. It is obviously necessary to take into account that the entrepreneurs, the trade unions, the lobbies and the economic regions are intensively interested in the production of the light industry. Only the government of an advanced country is in a position to solve the problems associated with this. The problem should be solved by an open-minded credit policy and by the assistance of the new activities.

Such agreements aimed at the structural transformation of the world economy would, at the same time, create a new division of labour. The long-term considerations of the governments are of considerable importance also because without them the long-term bilateral agreements may result in a reduction of imports. Another step of importance would be if the advanced countries stopped protecting their domestic industry by tariffs against the finished goods imported from the developing countries. Let us refer to a noteworthy study by Béla Balassa on the nature and effects of these protectionist measures.<sup>1</sup> Nevertheless, in most

<sup>1</sup> B. Balassa: *The Structure of Protection in the Industrial Countries and Its Effects on the Exports of Processed Goods from Developing Countries*. International Bank for Reconstruction and Development, 1968, Report No. EC-152a.

cases the new division of labour would be achieved also by the acceleration of economic growth in the developing countries, resulting from the various material and human resources lent to them by the advanced countries. All this would mean a redistribution of part of the goods, services and incomes of the world, for the benefit of the developing countries.

### Redistribution of Part of the Incomes

The amount of goods, services and incomes to be redistributed is not significant as yet: it is only 0.5 per cent of the aggregate income of the world's nations. (The developing countries are included here in the aggregate since what we want to know is the share of the incomes to be redistributed within the aggregate income.)

The present methods of redistribution, i.e. credits, aids and technological assistance, have been dealt with in the previous chapter. Let us examine now the sources that can be expected in the coming years.

According to the recommendations of the Geneva World Conference on Trade and Development, the advanced countries should, in a form they deem appropriate, place at the disposal of the developing countries one per cent of their annual national income. The annual national income of the advanced countries amounted in 1964 to about \$ 1,600,000 million, one per cent of which exceeds by 7,000 million the sum of credits and aids granted at present. (Let us add in parentheses that the 9,000 million does not include the military aids but presumably includes the infrastructural assistance involved by military establishments of bases, such as, for instance, the construction of strategic roads.)

This recommendation is a very bold initiative, and the merits of the initiators must be praised. Yet on a closer examination it is found that the recommendation is somewhat mechanical and does not equitably distribute the burden among the advanced countries. Without digging up the past it must be made clear that certain countries used to be colonizers and their economic development has acquired a great impetus through the means extracted from their colonies. But even as regards the present it must be emphasized that there still are countries tapping the developing countries for very considerable means. If we accept the fact that the extraction of means may assume three different forms:

- a) the transfer profits (about an annual amount of \$ 4,000 million),
- b) the debt services (about \$ 4 million annually), and
- c) the unequal exchange of goods (terms of trade),

it becomes clear that only a few advanced capitalist countries take a substantial part in the extraction of means from the developing countries. It is common knowledge that the socialist countries have no great enterprises in the developing countries and also their share in the trade of the latter is rather small.

On the other hand, the capacities of the advanced countries are also different. For countries having limited economic resources, even 1 per cent would mean a serious problem, while other countries have already granted larger sums than that.



It would therefore be expedient to define the assistance quota of each advanced country in a more differentiated manner. The level and the volume of the "aid percentage" to be recommended should be made dependent on three factors:

- a) the extent of the economic, trade and financial interests of the advanced country in the developing countries,
- b) the economic potential of the developing country,
- c) the voluntary offers of the advanced country.

It is, evidently, always more difficult to elaborate selective recommendations than mechanical and equalizing ones because they inevitably give rise to debates. Yet the problem cannot be circumvented by recommendations that will not be accepted.

A more concrete, selective and equitable recommendation could secure at present the annual \$ 16,000 million which would later grow parallel to the national product of the advanced countries as well as to the volume of the economic ties developing between the advanced and the developing countries. An aggregate of \$ 16,000 million, instead of the present \$ 9,200 million would mean that the investments of the developing countries from foreign funds could be raised by 70 per cent, or the total of their investments by 23 per cent.

### Intellectual and Material Energies Released by the Reduction of Armament Expenditures

The reduction of the armament spendings would release vast resources, and the intellectual and material forces made available could partly be yielded to the developing countries. According to recent data, the world is spending about 200,000 million dollars on armament, a sum about equal to the annual national income of the developing countries. The reduction of armament would release vast energies. A rapidly growing number of excellent research workers is now engaged in the solution of scientific problems connected with armament. The release of scientific capacities would have a particular importance for the developing countries. It is well known that the body of knowledge, the views and methods established in the scientific centres of the present world cannot be applied without further modification to the developing world.

In the course of an accelerated economic growth very different social formations and institutions are likely to coexist and operate side by side. Their functions in the new society should be analysed carefully. On the other hand, for instance, the contemporary agricultural techniques must necessarily differ according to climatic, soil, economic and social conditions, and there are hundreds of regions for which different methods should be worked out. Hence the intellectual capacities released by the reduction of armament are needed even more than the material ones.

Modern armament, as compared to traditional, requires fewer material resources, and much greater scientific human efforts. As a consequence, it has a smaller impact on the economic structure of the advanced countries than tradi-

tional armament had. This statement can be confirmed by the fact that, over the past decades, economic growth has been the most intensive and rapid in the countries that have spent little on armament. On the other hand, it would be wrong to underestimate a certain multiplier effect of armament and its contribution to technological progress.

Finally, it should be stressed that—as armament experts often say—contemporary armament does not increase national security since the techniques of defence can no longer keep pace with the development of the offensive ones.

By curbing the military expenses by 10 per cent and offering the difference saved (in the form of goods and services) to the developing countries the possible volume of annual investments of these countries could be increased by 20 per cent.

It seems probable that the material and intellectual energies released by the reduction of armament could best be used for the development of agricultural production.

The sources, as can be seen, would be available in sufficient amounts under proper international conditions. Other advantages could be expected from the improvement of the structure and the more efficient utilization of credits and aids.

### Improving the Structure and Efficiency of Foreign Credits

As has been pointed out earlier, the developing countries receive credits and aids not for their economic development in the first place but for the development of their trade. The main reason is that the developing countries are unable to pay for their imports by their exports. Thus the advanced countries are compelled to supply them partly on credit. As this practice cannot continue for ever, constructions must be found by which the export of the developing countries to the industrial countries can be increased. To this end the advanced countries ought to reduce and gradually liquidate the barriers of protectionism set up against the semifinished and finished goods coming from the developing countries. On the other hand, the new division of labour must comprise, in addition to international trade, also the phases of investment and production, since no radical change in the structure or world trade is conceivable without adequate changes in the production pattern of the participating countries. As regards the advanced countries, such changes in the production pattern would involve no substantial tensions even in the short run, if it is possible to disarm some short-term interests and their political lobbies. And in the long run, such changes would even be advantageous since both the shift to cheaper sources of purchase and the new export possibilities would be beneficial.

If, on the other hand, the foreign-currency incomes of the developing countries increase, they could finance a growing portion of their imports, and part of the present credits serving the development of their trade could be replaced by credits serving their economic growth. This would have a cumulative effect since the new division of labour and the liberal trade policy of the advanced countries would

have a beneficial effect on the export sector and on the foreign-currency position of the developing countries while the concentration of foreign credits to purposes of economic growth would greatly accelerate their development.

Only under such circumstances may it be hoped that the bilateral aids become capable of more than merely filling up the gaps in the balance of payments.

The more efficient utilization of bilateral aid, however, requires a more active and more rational co-operation of the international organizations. Without this, neither the attempts to achieve a new international division of labour nor the replacement of trade-development credits with economic-development credits can be successful.

The transformation of trade-development credits into investment credits is, naturally, not the only factor calling for the internationalization of aids. Experience shows that some advanced countries are ready to mitigate the shortage of foodstuffs in some developing countries over a short period, since their surpluses of agricultural production compel them to finance part of their exports. For a long time, the cheapest mode of getting rid of the accumulated food surpluses has been to finance their export by budget means. Today, however, the situation seems to be changing, as indicated by the reduction of the grain stock of the United States. But, as yet, no advanced country is inclined to finance long-term projects of agricultural development in the countries where food is scarce.

No doubt, the redistribution of resources through the system of bilateral aids is extremely uneven, whence the rightful economic interests of the countries having no primary political importance are invariably pushed into the background.

In order to establish a system of international assistance three main requirements are to be taken into account, which are contradictory, at least in the present circumstances:

- a) for purposes of assistance, stable and ever growing sources should be earmarked,
  - b) the available funds should be distributed equitably, after a careful weighing of the economic position and needs of each developing country,
  - c) the developing countries should utilize the aid in the most efficient manner.
- The efficiency of utilization, however, does not depend exclusively on the domestic economy but also on the nature, the conditions, the complexity, etc. of the aid.

### An Internationalized System of Assistance?

It is evident that the system of "internationalized" assistance would suit better the second and the third of the above requirements. An international organization that would dispose of all funds destined for aid could distribute them more equitably than the governments of individual countries, influenced by different political and economic interests and often unaware of one another's activities. And if the structure of aids were better adapted to the demands of the developing

countries, their utilization would also become more efficient. Yet the question remains whether the internationalization, i.e. centralization of aids would not diminish the available funds. If the countries granting aid felt their direct political and economic interests diminished, they would be less inclined to offer funds. This is why the complete internationalization of the aids must not be attempted at present. The amount of available funds would be reduced to a greater extent than by what their efficiency would rise through their more equitable distribution, better structure and better utilization. Moreover, what we understand by equitable distribution would adversely affect certain developing countries, and these would, naturally, oppose the centralization of aids from the very outset. Finally, the centralized distribution system is likely to operate with certain defects at the beginning, for instance by creating unnecessary bureaucracy and rendering the access to aids rather complicated.

With due regard to these considerations it seems best to proceed with caution and gradually, i.e. to internationalize only part of the funds, while for the rest it seems expedient to observe the principle of direct interest. Endeavours should, however, be made to render the bilateral aids of rigid construction convertible, contractable or—if necessary—interchangeable with the help of international organizations, e.g., through an elastically operating clearing house which is economically interested in the solution of its tasks. The convertibility of aids would make their utilization more economical because the sources of purchasing the investment goods could be chosen more freely, and it would promote the co-ordination of the supply and demand of investment goods.

One of the main tasks of international organizations could be to normalize and regulate the conditions of credits and aids. In cases when the conditions of bilateral credits and aids are not sufficiently advantageous for the developing countries, the international financial organs should step in under more favourable conditions. Even in our days there exist similar phenomena. The World Bank, although later than would have been reasonable, extended the expiry of its credits to 20 or 25 years, and IDA even issues 50-year credits free of interest. Also in other respects it should be ensured that the private banking organizations give, to a certain extent, priority to the financing of developing countries, even if the conditions are less favourable for them than they are in other relations. Hence the justified economic interests of the banking organizations will have to be ensured by means of certain constructions in order to give priority to the developing countries.

I wish to mention three other fields or tasks in which the international organizations must play a decisive or leading part. These tasks are as follows:

- to control the big foreign enterprises operating in the developing countries,
- to plan and organize the technological aids and to co-ordinate them with other types of aids,
- tasks aimed at a rapid increasing of agricultural production in the developing countries, especially in the Far East.

We have often underlined the fact that the big enterprises play a special role in the relationship between the advanced and the developing countries. The problems

caused by them have been discussed earlier: the expatriated profit is high (about \$ 4,000 million annually), its reinvested part is small, the conceptions of the enterprises and of the government's economic policy are contradictory so that the foreign enterprises influence the long-term development in a wrong direction. The relationship between the big foreign enterprises and the small nations has been revealed as particularly grave. The big enterprises often form a state within the state, they control elements of economic life on which the fate of the whole national economy and of the state power depends. In this situation the notions of national independence and sovereignty may become fictitious.

It logically follows from the above, and we want to emphasize it once more, that the big capitalist enterprises possessing a wide international organization embody a vast economic power and do not always obey to the laws of the market. Many authors conceive the relationship between the big enterprises and the developing countries as a series of regrettable, tragic and unavoidable conflicts, and assert that the big enterprises would be willing to consider the interests of the developing countries, yet the iron laws of the market and competition do not let them do so. This picture is utterly erroneous. In our days the big enterprises rather dictate than obey the market processes. This general statement can be especially well confirmed by the example of the relationship between the advanced and the developed countries. The prices no longer play their traditional part since the export prices of the commodities produced by the advanced countries do not fall, although the productivity of labour increases from year to year.

The problem is how to persuade the big enterprises of the necessity of promoting the economic progress of the developing countries. If the big enterprises embody a concentrated economic and a significant political power, it is evident that all efforts to change their policy can only be successful if power is applied.

The power factors able to bring pressure upon the big enterprises are:

- the government of the developing country,
- the government of the advanced country in which the given enterprise is seated,
- the international organizations,
- the moral and political public opinion of the world.

Let us add that this power-political pressure should be exerted together with the concession of certain economic advantages to the big enterprises in question.

From among the power factors capable of exerting pressure, the government of the advanced capitalist country seems to be the most potent. The government of the developing country naturally also possesses certain means to exert pressure on the big enterprise yet this pressure can—under the present power conditions—not be effective unless also the government of the advanced country where the enterprise is seated consents to it or at least adopts a neutral position. Otherwise, the big enterprise will ask its own government for protection and thus the conflict between the big enterprise and the developing country is transferred to the interstate level. In such cases, however, the international organizations are reluctant to give their opinion, and also the public opinion of the world can hardly be mobilized. It re-

mains to be seen whether or not the government of the advanced capitalist country is willing to stay neutral in the conflict. An example of this can be quoted from the relationship between France and Algeria.

The development of such a situation depends on several factors, such as

- favourable international political conditions promoting the endeavours of the developing country,
- the skilful, tactical and consistent policy of the government of the developing country, making use of every possibility of action,
- a far-sighted policy and a proper tactical position of the government of the advanced country (if, for instance, the public opinion of the given country is too sure of itself or has suffered previously political fiascoes and crises, or the government is too weak, then the government can hardly make any concessions),
- the conviction of the advanced country's government that the business policy of the big enterprise in question runs against national interests, or at least endangers the good relations with the developing country in question,
- the capacity (power) of the government of the advanced country, taken in both political and economic sense, to make the big enterprise adopt a policy contrary to its former attitude.

What policy of big enterprises would be beneficial for the developing countries? The essence of such a policy could be briefly summed up as follows:

- a) the big enterprise should extract fewer means from the economic life of the developing country (the problem of transferred profits),
- b) through its wide international connections it should contribute to the acceleration of economic growth in the country where it operates,
- c) it should co-ordinate all its activities and development policy with the economic policy of the country.

The problem is how to use the enterprise profits that would remain in the country. We have seen that about 83 per cent of the profits of the big enterprises operating in developing countries are now expatriated. Thus, the idea of having at least 50 to 60 per cent of the profits (instead of the present 17 per cent) reinvested in the developing country seems to be an obvious solution. This would raise the investments made in the developing countries by \$ 2,000 million.

### The Status of Foreign Big Enterprises

We have stressed it more than once that certain big enterprises play an all too important and unhealthy role in the economic life of some small countries. If the greater part of the profits were to be reinvested in the same country, after some time almost every economic activity would get concentrated in hands of the big foreign enterprise. This would be undesirable even if the legal status of the big enterprise were properly regulated.

The status of the big enterprises has been and is being discussed from various angles. What these discussions have in common is an endeavour to give the inter-

national organizations and the developing countries an institutional right to have a say in the general business policy of the big enterprises. It is quite evident that the activities of a big international enterprise (having its branches in many countries) cannot be judged on purely local considerations, not even if the local considerations are more equitable and ethical than the business policy of the enterprise relying on a wider range of vision. The difficulties can, however, be coped with if the international organizations and the developing countries are allowed an insight and a say in the general business policy of the big enterprise.

This may assume various forms such as, for instance,

a) the international status of a big enterprise (suggested by Piatier) should involve joint supervision by the government of an advanced and that of a developing country,

b) the regional economic federation of several developing countries should exercise control over the big foreign enterprise operating in the given region,

c) beside the exponents of the advanced and of the developing countries, the delegates of the international organizations could also co-operate in the supervision of the big enterprise.

Neither of these forms seems to be perfectly suitable for the purpose—although we would suggest variant c)—yet any of them would represent a step forward compared to the present situation and would ensure new material funds for the acceleration of economic development. Any of these solutions would grant higher security to big enterprises against a certain reduction of profits and some limitation of their disposability. It is, however, quite evident that the profit cannot be the only guiding principle for the operation of the big enterprises abroad since considerations of security are of no less importance. The present situation may yield higher profits, yet the political risks are also more serious. And anyhow, it is inherent in the nature of the big enterprise, as a form of economic organization, that its leaders are inclined to give preference to long-term security over short-term profit considerations.

If the governments of the advanced countries grant certain privileges to the big enterprises in question (tax reductions, state orders under favourable terms, etc.) it may well be presumed that they become willing to adopt the construction suggested.

### Increasing Technological Aid under International Control

If under international control and co-ordination technical assistance could be enhanced, it would acquire great importance. Beyond doubt, the developing countries do not utilize with optimum efficiency even the scarcely available development means, whether domestic or foreign. But as long as there is a chronic shortage of highly qualified manpower, efficiency remains a problem closely linked with that of technical assistance.

Technical assistance has failed so far to occupy the place it deserves in the system of aids. Its major part is entirely independent of the problems of economic advance-

ment in the developing countries. The foreign experts engaged under the system of technical assistance do not work as efficiently as would be required. The reasons for this have earlier been dealt with, and here we confine ourselves to this statement.

The foreign experts are engaged in very different fields; some of them are leaders of establishments (industrial plants, state-owned farms, servicing enterprises, etc.), others work out concepts and recommendations for the responsible leaders.

It would be the task of the international organizations

- to undertake the training of experts (all experts ought to acquaint themselves with the political, economic, social and legal conditions of the country in which they are meant to work),
- to select experts capable of acting as all-round and circumspect advisers,
- to co-ordinate the aids granted on a bilateral basis and, finally,
- to make sure that the technical aids are co-ordinated with the economic development objectives and with the efficient utilization of the available (domestic or foreign) means.

In this connection let us stress one aspect, that of the complexity of the aids. We have more than once touched upon this question and stressed that the supply of the material and intellectual means should be co-ordinated. The increase of credits and aids remains ineffective if nothing is done to increase, at the same time, the capital-absorbing capacity of the country.

As far as technical assistance is concerned, complexity is understood in a somewhat different way. It is understood to mean that in a centrally directed economy several state and economic organizations co-operate to solve some task of economic development. The actions of these are carried out on different levels but must be co-ordinated, interrelated and well-proportioned in order to contribute to the good and timely solution of the task. When planning technical aid and securing the means, efforts should be made to extend assistance to all levels contributing to the accomplishment of the task in question. Otherwise the efficiency of the work done on one or more action levels will be ruined by leaving the capacity of action of other levels unsupported. What happens here is similar to the process in transport: the pace of any column is determined by the slowest vehicle. The trouble with technical assistance in economic life is, similarly, that our way of thinking is much too horizontal. Greater stress ought to be given to the vertical way of thinking, i.e. to the planning of our decisions in the order of actions, occurrences and economic processes in chronological succession and with due regard to their technical correlations.

A more intensive participation of the international organizations in planning, granting and co-ordinating technical aids could contribute to meet better the demand for experts in connection with the most diverse economico-political tasks. Since the tasks to be solved are similar in several countries and their demand in qualified manpower is also similar (though local differences may occur in the state apparatus, the economic organizations and competences) both the tasks and the supply of experts can be typified.



## International Planning and Actions to Solve the Food Problems of the Far East

The stepping up of agricultural production in the developing countries, particularly in the Far East, should be organized, initiated and co-ordinated on an international basis. We have already dealt with the character and the significance of the task. Here we wish to underline that the amount of means required for the solution of the task is so great that not even the strongest countries could individually undertake it with any reasonable hope.

Let it be stressed here again that perhaps the fate of human civilization depends on the successful solution of this task. Therefore, the international organizations must realize their obvious duty of taking the initiative. They must employ all their authority and capacity to draw the attention of the world's public opinion and of the leading powers to this question.

The plans meant to underlie actions taken on the international level must be worked out with the participation of the world's best experts. Then the plans should be discussed in the United Nations Organization which is expected to adopt the necessary resolutions. All advanced countries should take part in the elaboration of the co-ordinated actions. All countries possessing the material power and the intellectual capacities may act on their own, but always as part of this great common world action.

The organization of the action on an international scale is motivated by the fact that the greatest problem of present-day mankind is at stake, and here action must be carried out not by one or a few nations but by the community of nations. The registration and assessment of the needs constitute a tremendous scientific and economic task which cannot be settled without the wide-scale co-operation of the scientists and specialists of the world. The material and intellectual energies necessary for the solution cannot be secured without the joint efforts of all advanced countries. When there is a general scarcity of means, all kinds of bilateral, unco-ordinated activities result in a waste of energies.

Last but not least it should be realized that even the most self-conscious nations cannot object to accepting help from the community of nations. Should one or a few powerful countries expropriate this action, this would prompt certain other advanced nations originally willing to grant aids to recoil and, on the other hand, by overemphasizing their role, they would find themselves opposed by the self-conscious new developing nations. What is more, by figuring as the only or the principal grantor, a powerful nation would make it impossible for the governments of other advanced countries to rally their nations for the accomplishment of this great aid programme.

Consequently, all rational considerations seem to suggest that it must be the task of the international organizations to initiate, to plan and to accomplish this action.

Is it possible for states and nations living in different social and economic systems and professing different conceptions of the future development of the world to

co-operate for the accomplishment of such a comprehensive programme? Evidently, this can only be achieved under the guidance of adequate international organizations.

### The Great Precedent: Consent and Co-operation in Order to Prevent Nuclear War

The history of our decade has produced an example showing that the representative of countries of different social systems have agreed and agree in one great cause: the prevention of a nuclear war, the saving of the existence of man. Though the adherents of both social systems are convinced that the social and economic system they advocate is superior to the other, that it would be in the interest of all peoples to live in it, neither of the parties recurs to a world war for propagating its system.

I wish to stress it once more that the problem of supplying the world, particularly the developing countries, with food also concerns the existence of mankind, the future of human civilization.

We therefore frankly trust that the international organizations are able to elaborate and carry out, with the full consent of the peoples concerned, such joint actions as are meant to establish and secure the minimum conditions for life worthy of man all over the world.

The greatest problem in the remaining decades of our century will be the liquidation of the extreme disparity in the distribution of the population and of the economic activities. This disparity is being constantly regenerated and even enhanced by the present world market mechanism. Hence the perspectives of development require the establishment of a world market mechanism in a new or essentially improved form for the solution of the above problem. The international organizations must have a decisive share in the shaping of the mechanism, in its permanent improvement and in maintaining its operation.

With the help of the new mechanism directed by the international organizations the following tasks can be achieved:

a) the redistribution of part of the incomes earned in the world (1 to 1.5 per cent instead of the present 0.5 per cent) so as to double the economic growth rate of the developing countries (to raise it from 3 per cent to 6) within a very short time and then to increase it further,

b) part of the redistribution can be achieved through bilateral agreements which, however, should be registered and controlled by the international organizations so as to prevent any break of the neutrality of the developing countries, and any utilization of aids aimed at involving certain developing countries in a kind of cold war,

c) the major part of the redistributed income will have to be utilized directly by international organizations which, then, could exert a strong influence on the conditions of credits and aids flowing along other channels,

d) the international organizations must help the developing countries to convert some of their former credits bound with cumbersome political or economical liabilities into new credits aimed at their development,

e) the international organizations should grant a significant part of the technical assistance directly, and co-ordinate the aids offered on bilateral and multilateral basis (e.g. OECD) in order to promote the efficient utilization of the means available to the developing countries,

f) another task of the international organizations to be fulfilled jointly with the governments of the advanced and the developing countries is to see to it that the big enterprises act in compliance with the economic policy of the developing countries,

g) the international organizations should encourage agreements on a new division of labour between the advanced and the developing countries and, for this purpose, carry out market research on a world scale,

h) the actions directed to increase agricultural production in the developing countries during the coming decades should be planned, promoted and co-ordinated on a world-wide scale.

In our age, when there are more than one hundred independent nations and three different conceptions on world economy, the economic problems having a decisive importance for the future of mankind must be examined, their solutions planned and the actions co-ordinated on a world level. The accomplishment of this postulate would open a new chapter in the history of world economy. We are still far from the historical period when the wealth of our planet is distributed according to the interests of mankind as a whole, yet the first steps—uncertain cautious and sceptic as they may be—have to be taken toward this remote objective

### **Can the Disproportion in the Distribution of Population and of Economic Activity Be Solved by Rational Human Actions?**

The fundamental problem, to be answered by a future deliberately shaped by human thought and action, consists in the question whether or not rational economic and political actions can be carried out on a world-wide scale in the remaining decades of our century. The conflict between the distribution of the population and that of the economic activities is at present getting sharper every hour under the impact of the present world market mechanism. Can the conflict be liquidated without war, i.e. with rational methods, in a historical period when the views on the reasons of the conflict and on the objectives of the development of human society fundamentally differ? There can be no doubt that the unprecedented rate of scientific and technological development is ripening the necessity of thinking and acting in "global" terms in the strict sense of the word.

We have also pointed out that war has become particularly irrational in our age; not only is there a possibility of destroying the world and human civilization but, even without this, there is hardly a chance for the victors of achieving their original

objectives. Irrational wars were fought in the past, but they never conjured up the danger of a world cataclysm. Nevertheless, the absurdity of irrational action is no proof for rational actions being possible; and in the coming decades mankind will have to face very grave dangers, perhaps even problems of survival.

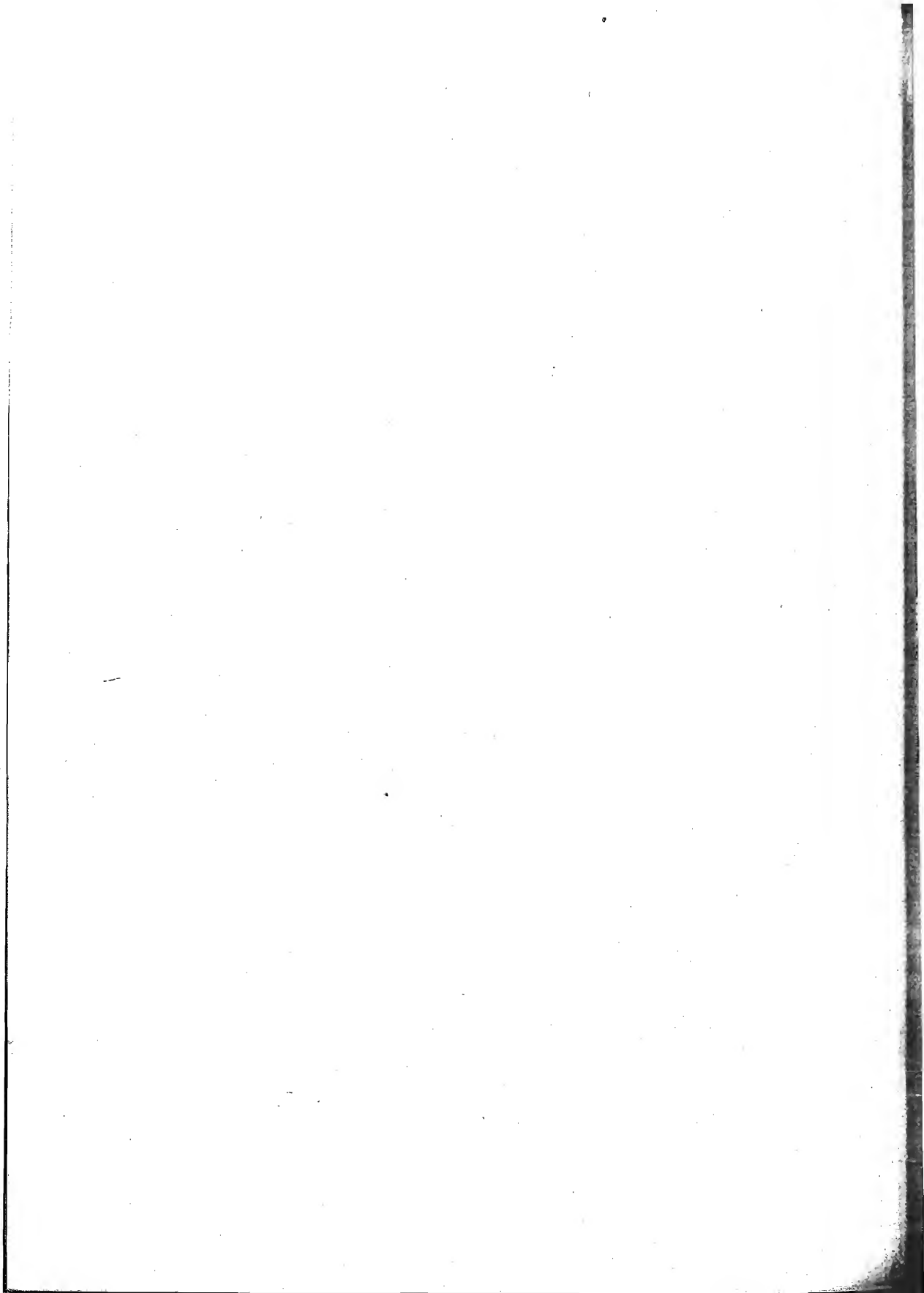
It cannot be denied, however, that great dangers, tremendous tensions and many uncertainty coefficients are concomitant also to the system of rational actions which we have advocated and tried to prove indispensable. The great question is, will the forces taking the field for a new world market mechanism be able to schedule and dose correctly and elastically the political pressure which should be sufficient to prompt the political and economic leaders of the advanced capitalist countries to assume an attitude alien to their own action reflexes, but not as strong as to drive them to resort to war? Will the progressive forces of the world be able to make a united, organized and disciplined front, will not the embittered and exhausted masses in certain points of the globe, or the political and military leaders having no faith in progressive humanism, resort to means frustrating the plan of a united world action? Will there not develop at times and in certain regions such over-tensions as render rational actions impossible? If so, what chain reactions will come about? Or will the international organizations develop their capacities, their action moral and intellectual courage to meet the requirements set by the actions outlined above?

All these questions signalize that mankind must begin to walk on new and untrodden paths. There has never in history been another age pregnant with so many difficult tasks, dangers and risks as is ours. Is it permissible to recommend or outline actions involving so many dangers and risks?

The moral courage necessary for action can be derived from the certainty that the failure to understand the new requirements and the postponement of action must inevitably lead to catastrophe. Hence action must not be delayed but used to divert the impending catastrophe.

If action is wanted, let us act rationally and with circumspection, for our purpose is to build up the future of mankind. Only rational and political action is strong enough to solve, in the spirit of a new age, the fundamental problems of the historical period around the turn of the millenary.

## Annex



## Planning Models of Economic Policy Used in Preparing Rational Economic Action

This chapter has been written in collaboration with Rudolf Andorka

In the economic literature and economic policy the notion of planning indicates activities and endeavours of very different nature. This must be so because this method of rational action taken in 'the macro-economic sense—the greatest discovery of Marxist economic science of the 20th century—is applied in countries of different social and economic systems, and also because the original contents and functions of national economic planning have improved during its development of several decades.

Rational human action relies on the fact that the aim of the economic activities is not only to meet demands but also to obtain a certain surplus income (profit, gain). This is indispensable since the economic resources are invariably scarce in relation to consumer demand and to the higher development objectives of the society; therefore they must be used with maximum efficiency, that is, so as to achieve the most favourable results by their investment. Hence economic efficiency is one of the principal postulates of rational economic activities under the conditions of a market economy. This postulate can be satisfied only when the means are comparable and convertible with the help of the universal equivalent. Under such conditions the frame and scope of economic activity must necessarily differ from those prevailing in the traditional economy in which the course of economic action is determined by traditions. Circumstances must be created in which people become interested in, and concerned with, achieving certain economic results (profit, income).

In the capitalist society rational economic action has been led chiefly by micro-economic interests and viewpoints. When capitalist ownership relations prevail, the micro-economic rationality (functioning on the enterprise level) is not identical with macro-economic rationality (functioning on the social level). Thus,

- the entrepreneur's objectives and interests differ from the direct interests of the people working in the enterprise,
- the interests of the entrepreneur (or the manager of a corporation) as a member of the society, differ from the indirect (social) interests of the people working in the enterprise,
- the rational decisions taken on the micro-economic level may be irrational from the viewpoint of the national economy and lead to the wasting of material means.

The antagonistic ownership relations, finding expression in the priority of the entrepreneurial interest and of micro-economy, caused serious economic crises and political conflicts in the history of the capitalist economy (cf. the World Economic Crisis of the thirties). Entrepreneurial objectives, disguised as national interests, elicited a host of economic wars and conflicts in international life.

In the period following the Second World War there is a tendency in the economic policy of the capitalist countries to shift the rational economic action to the macro-economic level: many West-European countries, including France and the Netherlands, started to prepare long-range and middle-range national-economic plans.

Among the factors contributing to the introduction of planning let us mention the unprecedented development of the proportion of the undertakings, the expansion of the economic activities of the state and the advancement of scientific foresight. With due regard to these factors, the capitalist economies have succeeded in improving the relationship between micro- and macro-economy, to step up the rate of technical development and to accelerate

growth. Nevertheless, the primary field of economic actions still continues to be the micro-economy, the profits of the enterprises are still strengthening the capitalist class. Moreover, the state—as a result of the intensification of its economic activities—is becoming more and more intertwined with the class of the capitalists. The ownership relations and forms (monopolies, oligopolies, etc.) set limits to the scope of central economic actions.

What a socialist economy inherits from its predecessor is a certain level of the forces of production, the postulate, deriving from the scarcity of resources, of economic rationality, and the techniques of its assertion.

Obviously, in socialism actions that seem rational in the micro-economic sense would not suffice to ensure rationality on the macro-economic level. But the socialist economy is capable of rallying society in a higher unit of economic activity directed toward certain fundamental objectives. Hence, in socialist economy rational human action may attain a higher level than any time during the previous economic history of mankind.

The high potential efficiency of rational economic action can be traced back, in the first place, to the following three factors:

a) The leading role of the socialist state in the political and economic life of society and the wide scope of state ownership ensure real possibilities for the macro-economic views to assert themselves.

b) Owing to the socialist ownership relations the conflicts of macro- and micro-economic rationality can be eliminated or reduced to the minimum.

c) Within micro-economy (i.e. among the various groups of people allied to achieve certain results) there are no essentially conflicting interests.

Yet the potential efficiency of rational economic action deriving from macro-economic considerations cannot be transformed into real efficiency unless certain requirements are met. Such requirements are—among others:

a) The economic decision and action should be implemented, i. e. performed under commodity and money conditions. The efficiency of socialist production cannot be secured unless the means and goods can be compared and converted with the help of the universal equivalent.

b) Despite their great significance, the decisions made on the macro-economic level cannot replace the rational behaviour of the micro-economic units.

c) The central leadership should dispose of sufficient reserves (more exactly, reserves in keeping with the tasks of economic policy and with the internal “frictional loss” of the system) to be able to influence the activities of the enterprises through the economic environment.

d) Particular care should be devoted to studying the character and nature of the economic decisions made on the macro-economic level and the activity of the decision-making organizations. It is clear that in a centrally directed economy the principal economic decisions (the determination of the objectives and resources of development, the elimination of bottlenecks, the shaping of the social and economic environment promoting the achievement of the objectives) are made by the highest leading bodies of the state (the political parties).

The planning of rational economic action has become a practice in the past decades also in the developing countries. Here, however, the circumstances of rational economic action essentially differ from those discussed above:

a) The social and economic conditions in the developing countries are substantially different from those under which the types of rational economic action known so far have evolved; mainly because the norms of rational managing have not yet been accepted throughout the society and, as a result, certain sectors can hardly be influenced by means of the classical economic factors (prices, wages and other incomes).

b) The developing countries must accomplish a relatively rapid economic growth in spite of the extreme scarcity of means and of the underdevelopment of micro-economy.

c) The necessity of rational economic action on the macro-economic level sometimes comes into collision with the weakness of the leading economic organs and with their lack of experience. Hence the efficiency of the action lags far behind the required.



d) The economico-political problems of the developing countries come into the centre of the competition and confrontation of the world powers. This fact must never be neglected when making economic decisions.

e) The cohesive forces of the national state (national economy) are still weak, particularism is still very much alive.

f) Finally, one of the greatest obstacles to rational economic action is the lack of political stability. In a centrally directed economy, as has been pointed out in connection with socialist planning, the principal economic decisions are made by leading political bodies. Hence the considerations connected with political power play an essential, often decisive part both in evolving the conceptions of economic policy and in making individual decisions.

One of the contradictions of the present situation is that the growth process requires a long-range economic conception and consistent policy for its implementation, but uncertain governments living and acting on the border line between existence and non-existence are hardly suitable to frame such a policy.

This explains why the economic policy of certain governments shows undue fluctuations depriving the population of confidence in the continuity of an "economic course".

It logically follows from the above that rational economic action in the developing countries

a) cannot embrace the whole economy because the traditional sector is still very strong, especially in agriculture,

b) is accomplished under extremely difficult economic conditions (the debility of micro-economy, the extreme scarcity of means, the weakness of the directing apparatus, etc.),

c) is the function of the prevailing political circumstances making it difficult to develop and put into practice the long-range conceptions (weakness of the cohesive forces of the nation or the state, political instability and the confrontation of the world powers).

These factors limit the scope of the rational economic actions since many non-economic considerations must be given priority at decision-making, and also reduce the applicability of alternative actions, since some of these are out of question owing either to the insufficiency of resources or to the weakness of the state apparatus. We have dwelt on these problems in the detailed discussion of the questions of economic policy.

There is no doubt, however, that rational economic actions are both necessary and possible in the developing countries in spite of these limiting factors; in other words, rational economic actions should and can be planned.

Their planning consists of various stages:

a) the determination of the contents of rational action, i.e. a comprehensive system of the aggregate and concrete objectives which the actions are meant to attain within a definite period and within the limits of the scarcely available resources (provided they are used with the best efficiency),

b) the choice of the methods and processes by which these objectives can be numerically determined and the coherent action variants for their accomplishment can be established,

c) the execution of rational economic actions on the macro-economic level, including

— the actions of the central organs and

— the decentralized economic processes whose trends are projected by the central organs.

The targets can best be approached if the actions of the various economic units, sectors and individuals concur in promoting one another.

The problems relating to the content of the rational economic action have been clarified in Part Two of this monograph; the problems relating to the execution of the macro-economic actions are discussed in Part Three. Here we shall analyse the methods and procedures by which coherent action variants suitable for the attainment of the aggregate and detail objectives can be established. When elaborating these action variants the scarce means (factors influencing growth) are combined in various proportions in relation to one another (as far as this is permitted by the convertibility of the means). These different combinations will promise different results. Our aim is to determine that set of action variants by which the best result can be obtained in relation to a given amount of the scarce means.

## Basic Concepts of the Económico-mathematical Models

The económico-mathematical models may play an essential role in the planning of rational economic actions. Such models are known to be used in the socialist countries, in France and the Netherlands, and also in some developing countries (e.g. in India and the United Arab Republic). Beside, or prior the económico-mathematical models, planning models belonging to the so-called "balance type" were evolved, especially in the socialist countries. We have experiences of many decades on the applicability of the balance-type planning models. We should like to emphasize that there seems to be no essential difference between the two kinds of models and that both methods can be used with success for the control of the other.

The económico-mathematical model is a system of equations (or inequalities) mathematically describing the most important relations of economic reality.

The model, then, consists of equations. These may express relations of a technical or structural nature (for instance, the amount of various products necessary for the manufacture of a given product), or relations revealed in the behaviour of the people (for instance, what part of the income increment is saved on a given level of income). There are equations expressing definitions. These are referred to also as identities: for instance, the national income equals the sum of consumption and accumulation; the accumulation equals the aggregate increment of fixed and working capital, etc.

The equations contain *variables*, which may be endogenous or exogenous. The value of the endogenous variables is determined by some other factors contained in the equation system of the model; that of the exogenous ones depends on some factor or factors not comprised in the model. Thus, what is endogenous in one model, may be exogenous in another. The national income may be quoted as a typical example of the endogenous variable because most macro-models contain the important factors determining the changes in the national income. In an equation determining agricultural production an exogenous variable may be the weather (the amounts of insolation or precipitation). The population or its increase is typical for the variable figuring as exogenous in one model and as endogenous in another (depending on the economic development).

Finally, the equations may contain *constants* in the form coefficients and exponents. These are called parameters. Their values are determined by factors not comprised in the model, such as, for instance, technological conditions, consumption habits, etc. Their values are usually taken as determined, although sometimes they may change; certain coefficients change under the impact of technological progress, etc. The values of some parameters depend on the economic policy pursued.

Three types of models can be distinguished according to the purpose of their application:

- a) Theoretical económico-mathematical models whose purpose is to demonstrate or clarify certain theoretical statements and argumentation. These are usually not numerical and are not used in practice, or at least have not been constructed for this purpose.
- b) Econometric models constructed for the explicit purpose of estimating their parameters on the basis of the available statistical data. This permits to draw conclusions as to the nature of certain interrelations and also to make forecasts.
- c) Planning models used in enterprise, sectoral or national planning. Some types of models permit only the comparison of the results of certain plan variants, others enable us mathematically to determine the optimum solution (programming models, operation research model).

## The Advantages and Limitations of Using Económico-mathematical Models

The use of the económico-mathematical models involves many advantages.

- a) They help to clarify and understand the relations and regularities described by them because they constrain us to formulate explicitly, in a coherent and exact manner, the

preliminary assumptions used in our deductions. Since there can theoretically be no mistake in a regular mathematical deduction, the correctness of our interferences will depend on how correct the preliminary assumptions were in approximating reality. Thus, when assessing the correctness of the conclusions, attention should be concentrated on the preliminary assumptions.

b) They enable us to grasp complicated relations and to solve problems which the traditional reasoning on the basis of logical analysis or even the traditional balance methods of economic planning cannot cope with.

c) They allow the relations to be expressed in quantitative terms and thus give a direct help for planning, since they facilitate the preliminary estimates and the determination of the numerical effects of the various economico-political measures. In economically advanced countries the numerical expression of certain factors permits the mechanization of some phases of planning and the working out of various alternatives.

d) They permit to check the theoretically established economic laws by mathematical and statistical methods and accordingly to justify or disprove them.

The limitations of the application of models can be summed up as follows:

a) A model never describes reality as a whole but only the interrelation of some of its factors considered important. Hence, when drawing the conclusions and deciding on economic measures, one must never forget this "abstract" character of the model. Moreover, since many factors and interrelations must be neglected by a model, other effects than predicted by it may also occur. Obviously, the final judgements and decisions can only be made when all relations and effects are known.

b) The simpler a model, the more abstract it must be, i.e. the less it approaches reality. On the other hand, a very complicated model is very difficult to grasp, also its computations require a greater equipment of calculating technology.

c) The starting point in model building is to assume that certain relations are essential and must be contained in the model and others are less so, i.e. can be neglected. The correctness of the conclusions that can be drawn from the model depends on whether or not the most important relations are comprised in the model.

d) Some factors influencing economic growth cannot be expressed in mathematical terms. These are, in the first place, the political power relations playing such an important part in the central economic decisions, as has been pointed out before. In such decisions, an alternative is likely to be chosen which represents the social rather than the economic optimum since it comprises also the considerations regarding the political power relations. In addition to this, account should be taken of such influencing factors as the weakness of the central power, strong particularism, political instability, competition and conflicts between the big powers.

It is obvious that these factors must be weighed carefully when planning economic actions. Hence, the mathematic models can only serve as aids to economic policy but can never replace a many-sided analysis of all elements and interrelations of reality.

## The Character of Our Model

In the building of our model we have assumed that various methods are used in planning rational economic actions. It is our conviction that it is possible to approach the principal problems and tasks connected with the acceleration of economic growth also by logical-analytical methods. Yet it is necessary to control the conclusions obtained logically and analytically and also to find out what basic situations would result from the various growth variants if the proportions between certain factors were changed.

For instance, the inference that a certain economy should be industrialized in an import-saving manner can also be arrived at by logical-analytical methods. This growth type, however, requires determined proportions between such factors as import, export, investments, budget revenue and expenditure, circulation of currency, etc., and by building up a mathe-

mathematical model we may find that this growth type which logically appears to be correct would involve impermissible tensions either in the budget or in the balance of payment over a longer period or in some years. In this case either another growth type should be chosen or the deficiencies predicted by the model be balanced in some way or other. The third possibility is, perhaps, to try to distribute the tensions more evenly over time.

In our opinion, the developing countries need a *simple* planning model for the following reasons:

a) In the developing countries the direction of rational economic action is markedly determined by politics. Hence an optimization model (that is, one designing the best alternative on the pure basis of the maximum or minimum value of some objective function) can only have a restricted significance when the central economic decisions are made by the highest political bodies, the political power relations are submitted to rapid changes and international politics has a strong impact on the direction of actions.

b) The economic relations are rather simple in the sense that there is as yet no such all-embracing system of interdependences as usually prevails in larger, more advanced and structurally more complicated economies. Hence the effects of the action variants upon the different factors can be approximated even by logical-analytical methods.

c) Owing to the extreme scarcity of resources the scope of the action variants is anyhow limited to those requiring not more of them than is available.

d) In the developing countries, it is the implementation of a decision or of a national economic plan that constitutes the narrowest bottleneck of rational economic action. This weakness is due to various factors which are analysed in Chapter 14 of this monograph.

Owing to the weakness of execution, the economic results actually achieved essentially differ from the expectations that have governed the decision. Taking into account the scarcity of qualified experts, it would be unthinkable to prepare the economic decisions by the aid of complicated mathematical models and electronic apparatuses and, at the same time, to improve also the methods of execution. And, if we have to make a choice, it seems very likely that the few available qualified experts can be used more efficiently in the implementation than in such a preparation of decisions.

Simple models, however, obviously have their limitations and are less suitable to analyse and control the consistency of the plans or to evolve variants containing modified factors. We are, naturally, aware that there are methods using much more advanced and complicated mathematical formulas than those to be suggested here. Yet we are convinced that the model to be described can be used in economic policy efficiently since it is obvious that the planning methods, the contents of the national economic plan and the capacities of a given society for their implementation are also dependent on one another. It is not likely that relatively uncomplicated plans which will have to be implemented with a low degree of efficiency can best be elaborated with the help of the most complicated methods known so far and with a vast mathematical apparatus.

Hence we shall describe a simple planning method whose chief characteristics are as follows:

a) It is not of a purely mathematical character but a logical-mathematical model approximating the problem gradually and empirically, a model kept in close connection with reality at every step of its construction and application.

b) Owing to its simple form, the model is logically comprehensible and applies as little mathematics as seemed indispensable to establish the relations in numerical form and present them in a co-ordinated, homogeneous system.

c) The computations of the model do not necessitate the work of numerous highly qualified experts and computers.

d) It is not an optimization model, determining the best measure or plan variant on the basis of the maximum and minimum values of a target function, nevertheless it yields variants and permits to measure their essential effects. This enables the planner and the politician to choose the variant that seems to be the most advantageous. In preparing decisions it makes it possible to consider not only one target or criterion as, for instance, the growth

of the national income, but several, such as the liquidation of monoculture, the transformation of the economic structure, etc.

e) The model primarily proceeds from the fundamental economico-political relations and that is why it begins the investigation with the determination of the growth rate and only then considers the questions associated with the co-ordination of the sectors, the balance of payment and the budget. Theoretically the opposite starting point is also conceivable—as is actually applied in the practice of planning so far adopted—when the model proceeds from the various development possibilities of the sectors.

We look upon this latter alternative as less expedient for our purposes since the sectoral considerations, relying in most cases on the technical possibilities, usually blur the economic character of the fundamental relationships. When the fundamental relationships are clarified, the next step should be the analysis of the sectoral possibilities, and it may even happen that these will lead to the subsequent modification of the central conception.

The following types of relations will be considered in the model :

a) The production of the different sectors of the economy should be balanced and co-ordinated, i.e. the sum of output and imports of every sector should cover the necessary inputs of other sectors consisting in its products, as well as the final demand (i.e., consumption, investment and exports) for these products. This is expressed by the input-output type of correlations.

b) The intention is to attain a certain growth rate of the national income which, in first approximation, depends on the investment rate (the share of the investments in the national income) and on the capital coefficient (the investment necessary for one unit of increment in the national income). In the second step it is analysed what sectoral increments could add up to this growth of the national income. The increments in the various sectors must also be co-ordinated, i.e. all sectors must grow according to their planned share in the inputs of the other sectors and in the ultimate demand.

c) The balance of payments must be in equilibrium; its most important item, the balance of trade must either be at least in equilibrium or else its deficit must be covered by contracting long-term foreign credits.

d) The state budget must also be at least in equilibrium in order to avoid inflationary phenomena.

e) The system of education must be made able to secure manpower of appropriate qualifications necessary for growth.

f) Supply and demand of consumer and capital goods must also be in equilibrium, the supply in consumer goods (production plus possible imports) must equal the part of national income assigned for consumption, and the supply in capital goods (home production, capacity of the construction industry plus imports) must equal the share of national income earmarked for investments.

When applying in practice a model corresponding to the above postulates, the following steps should be taken:

a) To determine the desirable and possible growth rate on the basis of the one-sector growth equation, with due regard to the savings rate and to the capital coefficient.

b) To subdivide this increment of the national income by sectors, in order to establish and co-ordinate the projected increments in the production of various sectors and to ascertain whether the growth of sectors is in equilibrium.

c) To ascertain whether the balance of payments and the state budget are in equilibrium.

d) To determine the amount of educational expenditure in the case of the growth required, and assign budget funds for this purpose.

e) To check on the equilibrium of the markets of consumer and capital goods.

f) To undertake various specialized investigations in order to

— ascertain what consequences the failure of achieving any of the various single plan objectives would have,

— assess the accelerating effect of growth in the various sectors upon other sectors.

## First Approximation to Determine the Achievable Growth by Means of One-sector Models

The first step in planning economic development is to find out approximately what growth rate can be optimally achieved under the given conditions. In this first approximation the entire economy is regarded as consisting of a single sector. This is, obviously, a very rough approximation telling nothing about the many conditions a growing economy should satisfy. Thus every one-sector model involves over-simplification, and we must be careful in drawing conclusions from it. Still, they are very useful for starting the formulation of our concepts.

For this first determination of the growth rate of the national economy several formulae can be used as a starting point. The planners of any developing country should choose the one best adapted to the endowments of their country or the one for which the necessary statistical data are available. It is, moreover, most expedient to determine the growth rate with more than one one-sector formula and then to collate the results.

We shall now describe a few one-sector growth formulae.

### 1. Determination of the Growth Rate through the Investment Rate and the Capital Coefficient

In this case, the growth rate is considered as the ratio of the investment to the capital coefficient:

$$y = \frac{\Delta Y}{Y} = \frac{s}{k} \quad (1)$$

where

$y$  = the growth rate of the national income, expressed in percentages,  
 $Y$  = national income (in monetary units) of the basis period,  
 $\Delta Y$  = the increment (in monetary units) of  $Y$  over the plan period,  
 $k$  = the capital coefficient, i.e. the capital necessary to produce a unit of the national income, or the investments needed for a unit increment in the national

$$\text{income,}^1 k = \frac{K}{Y} = \frac{J}{\Delta Y}$$

$s$  = the investment or saving rate, i.e. the ratio of the saved and invested part of national income to the entire national income  $s = \frac{S}{Y} = \frac{J}{Y}$

$S$  = saving;

$J$  = the sum of investments (in monetary units);

$K$  = stock of productive capital in the national economy.

It follows that

$$Y = \frac{K}{k} \quad (1a)$$

<sup>1</sup> The average capital coefficient i.e. total stock of productive capital per unit national income,  $K/Y$  does not necessarily equal the marginal capital coefficient (that is,  $\Delta K/\Delta Y$  or, in other words,  $J/\Delta Y$ , or the investment necessary for the increment of the unit national income).

In a given economic system,  $K/Y$  may happen to be substantially lower than  $\Delta K/\Delta Y$ , that is, the amount of increment in productive capital necessary to bring about a unit of increment in national income; this is the case, for instance, when in a given moment production relies mostly on economic activities requiring small capital, whereas the target is to develop an industrial production which is demanding more capital. If there is a deviation between the two capital coefficients, then the marginal capital coefficient is to be used in calculating the growth rate. In practice it is easier to determine the marginal capital coefficient than the average, since the exact determination of the capital stock existing in the economy is a very exacting statistical task. It must, however, not be forgotten that an increment in the national income may be achieved with investments of very different composition, whence the marginal capital coefficient will widely vary as a function of the structure of the investments.

The capital coefficient related to the whole economy is, naturally, an abstract notion. Its value is closely related to the structural changes. It should therefore be handled with utmost care and circumspection.

i.e. the national income is the quotient of the capital stock and the capital coefficient, and

$$\Delta Y = \frac{J}{k} \quad (1b)$$

i.e. the increment of the national income equals, in a given period, the quotient of the investments and of the capital coefficient.

The necessary statistical data: The condition for the applicability of Formulae (1a) and (1b) is to have some data on the volume of the national income. If no relevant statistical data are available, a notion narrower than the national income can be used; the production of sectors and plants concerning which statistical data are available. If these sectors comprise a significant part of the economy, i.e. only disregard the production of the traditional sector which is, to some extent, independent of the economic circulation in the country, then the planning of economic development can rely on the production of these sectors.

The capital coefficient (or capital/output ratio) can be determined from the statistical data relating to the past period, possibly aided by some technical data. The formula is the following:

$$k = \text{capital coefficient} = \frac{\text{investment}}{\text{increment in national income}}.$$

Since the effects of the investments are felt only after a longer period of time, it is expedient to consider data over several years, calculating for instance the ratio of the investments and of the income increment of a five-year period. It may also be useful to shift two five-year periods by one or two years in relation to each other and thus to collate for instance the investments of 1955-59 with the increment of income between 1956 and 1960 or between 1957 and 1961.

In such simple macro-economic computations the value of the capital coefficient for a national economy as a whole is usually found as being somewhere between 2 and 5, depending on the sectoral and branch structure of the national economy. For a given national economy, the coefficient is almost constant for shorter periods and changes but slowly over longer periods. It will be probably rather high in the first period of economic growth, but later it decreases. The main reasons of its being high derives from the necessity of building up the "infrastructure" of the economy (roads, railways, canalization, power plants, ports, housing, public utilities, etc.). These establishments require very high investments but do not contribute directly to the growth of the national income. Another reason is that, at the beginning of the growth process, even in the productive sphere many investments serve to replace manual work by machines rather than to increase the volume of production. Later on, when investments tend mostly to replace the already existing machines with new, more efficient ones, the amount of investment necessary to increase production by one unit will be lower.

The capital coefficient varies widely according to the different sectors and branches. The range of variations goes far beyond the limits of 2 and 5. It is generally lower in the light industry and higher in the heavy industry, mining, power production. For less mechanized investments it is again lower than for investments requiring contemporary machine technology. Hence, when determining it, the character of the investments projected for the coming period should be taken into account. If the structure (the sectoral composition) of the investments essentially differs from what it was in the previous period, then the capital coefficient obtained on the basis of statistical data cannot be used unmodified.

When determining the *investment funds*, the following sources should be considered: the amounts that can be invested by the state, the investments that are likely to be made by the domestic capitalists, peasants, etc., the expected investments of foreign private capital, and the amount of investments that can be expected from the aids and loans offered by foreign states or international agencies.

The value of the investment rate ( $s$ ) can be obtained from this formula:

$$s = \frac{\text{state investment} + \text{private domestic investment} + \text{investment from abroad}}{\text{national income}}.$$

Numerically, the investment rate may be anything between  $\frac{1}{20}$  and  $\frac{1}{3}$ , i.e. the annual sum of investment is between 5 per cent and 33 per cent of the national income.

*Examples:*

(a) The national income was 1,500 million monetary units (MU for short) in 1961 and MU 1,800 million in 1965. A total amount of MU 1,300 million were invested during this period. The investment funds expected for the following year (1966) is (in MU millions): state investments 100, domestic private investments 120, foreign state loan and aid 80, foreign private investment 30, adding up to MU 330 million. What increment can be expected?

The capital coefficient, computed on the basis of the past five years, will be

$$k = \frac{\text{investments}}{\text{income increment}} = \frac{1,300 \text{ million}}{1,800 \text{ million} - 1,500 \text{ million}} = \frac{1,300}{300} = 4.3.$$

The anticipated investment rate:

$$s = \frac{\text{investments}}{\text{national income}} = \frac{330 \text{ million}}{1,800 \text{ million}} = 0.183 = 18.3\%.$$

Under such conditions, if the capital coefficient calculated does not change, the growth rate that can be achieved is

$$y = \frac{s}{k} = \frac{0.183}{4.3} = 0.0426 = 4.26 \text{ per cent.}$$

The national income will, then, show an annual increment of 4.26 per cent.

(b) Under the same conditions the investment funds expected for 1966-70 are as follows (in MU millions): state investments 600, private investments 500, foreign state loans and aid 350, foreign private investments 120, adding up to MU 1,570 million. What is the expected annual growth of the national income?

The expected investment rate is, then,

$$s_{5 \text{ years}} = \frac{1,570 \text{ million}}{1,800 \text{ million}} = 0.872 \text{ or } 87.2 \text{ per cent.}$$

This investment rate relates the investments over five years to the national income of a single year (1965). Hence Formula (1) shows the percentual growth of the national income over five years related to the national income of 1965. This growth rate is

$$y = \frac{s_{5 \text{ years}}}{k} = \frac{0.872}{4.3} = 0.203 = 20.3 \text{ per cent.}$$

(c) Since the investments of the 1966-70 period are assigned to sectors requiring more capital than did the investments of the preceding five years, the capital coefficient is expected to rise from 4.3 to 5.1. How much will be the increase in the national income during the 1966-70 period under such conditions?

$$y = \frac{s_{5 \text{ years}}}{k} = \frac{0.872}{5.1} = 0.171 = 17.1 \text{ per cent.}$$

(d) Let us suppose that, from the political point of view this increment is not satisfactory. The population can be expected to increase by 12 per cent of the 1965 population in 1966-70, and thus the per capita national income would rise approximately by  $\frac{117.1}{112.0} = 4.6$  per cent in five years. Now, it is desirable that the five-years increase in the standard of living should amount to about 12 per cent. Therefore a 25 per cent increase of the national income should



be projected for these five years. What should the value of the increase in the investment fund be in this case?

According to Formula (1), the necessary investment rate for the five-year period is.

$$s_{5 \text{ years}} = yk = 0.25 \times 5.1 = 1.275 = 12.8 \text{ per cent.}$$

The sum of the necessary investments should be then:

$$S_{5 \text{ years}} = s_{5 \text{ years}} \times Y = 1.28 \times 1,800 \text{ million} = 2,304 \text{ million.}$$

Hence the investment fund of MU 1,570 million must be raised by  $2,304 - 1,570 = \text{MU } 734$  million. The next task of the economic planning organs is to find out where these funds can be raised. The state investments can be increased if tax policy ensures more income for the budget, and/or the share of non-productive state investments is reduced. Private domestic investments can be increased by tax, credit and price policy, additional foreign credits or aids may be acquired, or additional foreign private investments may be made possible.\*

(c) On the other hand, let us assume that it is not possible to raise the investment fund over that provided in Example (b). The question arises then, whether it would not be more expedient to work out a less capital-intensive investment plan and thus to achieve a more rapid growth by reducing the capital coefficient. What capital coefficient would be permissible when a 25 per cent rise in the national income in five years must be achieved? From Formula (1)

$$k = \frac{s_{5 \text{ years}}}{y} = \frac{0.872}{0.25} = 3.5.$$

Hence the desired 25 per cent growth can be achieved with an investment fund of MU 1,570 million only if the present capital coefficient of 4.3 is reduced to 3.5. The next task of the planning organs is to decide whether it is possible (and desirable) to modify the structure of the investments in this way.

## 2. Determination of the Growth Rate through the Growth Rates of Employment and Labour Productivity

The national income can be expressed as a function of the labour input (employment) and of the productivity of labour:

$$Y = L \times p \quad (2)$$

where

$L$  = the labour input used for the production of the national income,

$p$  = the productivity of work, i.e. production falling to the unit of labour input (working hour, working day, working week, working person—depending on the unit of  $L$ ).

Hence the growth of the national income between two periods is

$$\begin{aligned} Y_{t+1} - Y_t = \Delta Y &= L_{t+1} p_{t+1} - L_t p_t = [(L_t + \Delta L) \times (p_t + \Delta p)] - L_t p_t = \\ &= L_t \Delta p + p_t \Delta L + \Delta p \Delta L \end{aligned} \quad (2a)$$

i.e. the growth of the national income is equal to the former stock of manpower multiplied by the increment in productivity, plus the former productivity multiplied by the manpower increment, plus the productivity increment multiplied by the manpower increment.

\* The question, however, may arise, whether such an increase of investments is not accompanied by the increase of the capital coefficient. This may be due to the exhaustion of the more remunerative investment possibilities, or even to the exaggerated requirements against the existing capacities necessary for implementation (e.g., the projecting organizations, the building industry, etc.).

To obtain the growth rate, Equation (2a) should be divided by Equation (2)<sup>3</sup>:

$$y = \frac{\Delta Y}{Y} = \frac{L_t \Delta p + p_t \Delta L + \Delta p \Delta L}{L_t p_t} \quad (2b)$$

or—when it is not necessary to show the values of the different factors separately—we may use the formula

$$y = \left( \frac{L_t + \Delta L}{L_t} \times \frac{p_t + \Delta p}{p_t} \right) - 1 \quad (2c)$$

i.e., by multiplying the index numbers of  $L$  and  $p$  we obtain the index number of  $Y$  and, after the deduction of 1, its growth expressed in the fraction of 1.

*Examples:*

(a) A 15 per cent increase in manpower and a 7 per cent increase in labour productivity can be expected for the period 1966–70. The percentual growth of the national income during the same period will be

$$y = (1.15 \times 1.07) - 1 \cong 0.23 = 23\%.$$

(b) The number of workers employed in production rises from 1,500,000 in 1965 to 1,700,000 in 1970. At the same time the value of the annual output per worker will rise from MU 1,000 in 1965 to MU 1,100 in 1970 (according to preliminary estimates). The expected growth of the national income for the period 1966–70 will be

$$\Delta Y = (1,700,000 \times 1,100) - (1,500,000 \times 1,000) = \text{MU } 370 \text{ million}.$$

The percentual growth of the national income will then be

$$y = \frac{370}{1,500} = 0.2467 = 24.7 \text{ per cent}.$$

Using Formula (2c), we obtain the same percentual growth as a result of the following multiplication:

$$y = \left( \frac{1,500,000 + 200,000}{1,500,000} \times \frac{1,000 + 100}{1,000} \right) - 1 = \\ = (1.133 \times 1.1) - 1 = 0.2463 \cong 24.7 \text{ per cent}.$$

The necessary statistical data: The growth of labour input can be taken as equal (provided the working hours computed for one worker do not change) to the increase of the manpower engaged in production. This, in turn, can be roughly estimated from the expected increase of the population, assuming that the number of those engaged in production will grow at least at the same rate as the total population. This method is being generally employed for agriculture, since it is very difficult to tell exactly how many of the agricultural population take part in agricultural production, and to what extent. (Women, children and old people are not full-time workers but their contribution is very important.) In the modern sectors of the economy, the growth of employment can be calculated more exactly, since each investment project necessarily contains data regarding the number of manpower that will be required for the operation of the plant in question.

In the case of developing countries where the structure of employment is likely to change substantially even in short periods, it is particularly important to assess the future develop-

<sup>3</sup> Naturally, here too, it should be taken into account that the productivity of labour may increase even without a rise in the technical equipment of labour, owing to technological and organizational development, etc. For the sake of simplicity, we omit this small correction.

ment of manpower and of labour productivity by major sectors and branches rather than for the aggregate of the national economy as a whole.

It is difficult to make a preliminary estimation of the growth of labour productivity because it is subject to many influencing factors, such as

- a) the increment of the capital equipment per one worker, i.e. of capital intensity,
- b) the technological progress,
- c) the improvement of the level of organization of work,
- d) the improvement of labour intensity,
- e) the rise in the level of the workers' qualification,
- f) the changes in the production structure, etc.

In the case of factors 3-5 the trend of the past period can be taken for a basis, but for the productivity increment due to the capital intensity (capital stock falling to one worker), and its improvement (modernization) as well as for the changes in the structure of production it is necessary to consider the investments of the plan period and their character.

### 3. The Relation of Labour Productivity to the Capital-Labour Ratio

There is the following relation between labour productivity and capital intensity:

$$\frac{Y}{L} = \frac{K/L}{K/Y} \quad (3)$$

$$\text{i.e., labour productivity} = \frac{\text{capital intensity}}{\text{capital coefficient}}$$

It follows that with unchanged capital coefficient the labour productivity and the capital intensity grow parallel, i.e. for instance a 3 per cent increase in the technical equipment of labour or capital intensity results in a 3 per cent increase of labour productivity.

If the sum to be invested in production during the plan period and the growth of productive employment are known, the increase of the capital intensity can be calculated if we have some information on its present level. This can be calculated by dividing the value of productive capital by the number of the workers. It is also possible, however, to assess the value of capital intensity on the basis of the labour productivity and capital coefficient if they are already known. It follows, namely, from Formula (3) that the capital intensity or capital-labour ratio equals the capital coefficient multiplied by labour productivity.

*Example:* in 1965 labour productivity (the annual national income per productive worker) was MU 1,000, the capital coefficient 4, whence the capital intensity i.e., the value of the capital stock per worker, was  $4 \times 1,000 = \text{MU } 4,000$ .

This permits us to estimate the increase of labour productivity in the plan period, provided the following data are available:

- a) the present national income and productive manpower,
- b) the present productivity of labour,
- c) the present capital coefficient,
- d) the investments anticipated in the plan period,
- e) the increase of the productive manpower anticipated in the plan period,
- f) the anticipated increase of labour productivity due to technological development, increased labour intensity and to the better organization of work.

#### *Examples:*

- (a) For 1965 we obtained the following data:
  - the national income was MU 1,000 million, productive manpower consisted of one million workers, labour productivity (the national income per one worker) was MU 1,000,
  - the capital coefficient,  $k = 4$ ,

- on the ground of the investments anticipated in the plan period 1966-70, the net growth of productive capital will be MU 600 million (i.e. so much will be the difference between the value of equipment put into operation and the original value of the old equipments which are going to be eliminated),

- the expected growth in productive manpower in five years in 100,000 persons.

Hence the capital intensity is at present

$$K/L = k \times p = 4 \times 1,000 = \text{MU } 4,000 \text{ and}$$

$$K = K/L \times L = \text{MU } 4,000 \text{ million.}$$

Up to 1970,  $K$  will grow by MU 600 million to MU 4,600 million, and  $L$  will be increased by 100,000 to 1,100,000; thus  $K/L$  will amount to  $4,600 : 1.1 = \text{MU } 4,182$ , i.e., will be 4.6 per cent higher than it was in 1965 (4,000).

If it is further assumed that labour productivity will be increased by an extra 1 per cent as a result of improvements other than that of the technological equipment (for instance, better organization of work, greater intensity, etc.), then the expected increment in labour productivity will be about 5.6 per cent.

Since manpower will be increased by 10 per cent, the expectable increase of the national income during the five years will be  $(1.1 \times 1.056) - 1 \cong 16.1$  per cent.

Of course, this computation method is based on the development of the national average of labour productivity. In reality, there will be much greater differences within the national average for 1970 than within that of 1965. If we assume that all the MU 600 million increment of capital equipment will materialize in brand new industrial plants, and that all the increment of 100,000 manpower will work exactly in these new plants, then the technological equipment of these will amount to  $600,000,000 : 100,000 = \text{MU } 6,000$ , while that of the rest will remain MU 4,000. Consequently, in 1970 a small part of the labour force will work with a 50 per cent greater technological equipment (and their productivity is likely to grow at about the same rate), while the rest will have about the same equipment as in 1965, and their productivity can grow only as far as this is possible *without* increasing the technological equipment (i.e. by improvements in organization, etc.).

(b) Let us assume now that there are vast unexploited labour reserves in the economy, and therefore employment must grow at a higher rate than population itself. Let us assume, moreover, that under such conditions it seems advisable to increase employment without increasing capital intensity. How many new workers can be engaged under the conditions of example (a), and what will the increase be in the national income?

Since the new investments in the period between 1966 and 1970 amount to MU 600 million, with an unchanged capital intensity, i.e. MU 4,000, the number of newly employed workers will be

$$\frac{600 \text{ million}}{4,000} = 150,000.$$

Since the capital intensity does not increase, labour productivity will rise only one per cent during the five-year period. The increase in manpower will be 15 per cent, thus the national income will grow by  $y = (1.15 \times 1.01) - 1 \cong 16.2$  per cent.

Let us remember, again, that all the above formulae and computations rely on net investments, i.e. do not include the investments necessary for the replacement of worn-out and eliminated equipment.

## A Two-sector Model

A more realistic model can be constructed for the developing countries by distinguishing two sectors, namely:

a) the sector using modern technological equipment and producing for the market,

b) the sector using traditional techniques and producing wholly or mainly for subsistence. Since this sector comprises vast labour reserves, a large quantity of them can be diverted from it without causing any reduction in production. (In practice, this labour diversion should be accomplished in a reasonable form, i.e. by inducing, in the first place, the young and more enterprising people to leave the traditional communities.)

In similar conditions the general aim of economic direction is obviously to divert the workers from the sector where they are able to ensure only the subsistence of their own families, and to engage them in a modern sector where their productivity will be substantially higher. This process, within reasonable limits, has favourable effects also on the traditional sector, by mitigating its over-population and by raising the overall per capita production. (The latter, however, will be to some extent counterbalanced by the population increase, so that the per capita production is determined by the balance of the two processes.)

When calculating the probable trend in the national income with this two sector model (which however, could be regarded as a one-sector model because what we practically have in mind is the modern sector, the traditional one having the only role of supplying manpower to the former), it seems advisable to assume, as a first approximation, that the capital intensity remains unchanged during growth, i.e. that, even in the modern sector, every newly engaged worker is going to be equipped with exactly the same amount of capital as his predecessors.<sup>4</sup>

In this case the increment of the national income generated in the modern sector will be

$$\Delta Y_1 = \Delta L_1 p_1 \quad (4)$$

where

$\Delta L_1$  = the increase of manpower engaged in the modern sector,

$p_1$  = labour productivity in the modern sector; this is assumed to remain unchanged as the capital intensity in this sector will not increase.

Thus the increment of the national income generated in the modern sector is obtained by multiplying the number of additional manpower engaged in the modern sector by the productivity of labour in this sector, assumed to be constant.

Since the national income is the sum total of the income generated in the modern sector  $Y_1$  and of the income of the traditional sector  $Y_2$  (which is assumed to remain constant):

$$Y = Y_1 + Y_2,$$

the growth rate of the national income will be

$$y = \frac{\Delta Y}{Y} = \frac{\Delta L_1 p_1}{Y_1 + Y_2} = \frac{\Delta L_1 p_1}{L_1 p_1 + Y_2} \quad (4a)$$

The necessary data are, then: the productivity of labour of the basis period which is assumed to remain constant in the plan period; the increment of manpower engaged in the modern

<sup>4</sup> It is, naturally, conceivable that a higher level of mechanization is projected for the new plants. This would result in a greater technical equipment of labour, but the number of workers who can be employed in the modern sector would become smaller. In principle it may also be conceived that, in order to employ as many workers as possible, the new plants will have a very low level of mechanization, so that the national average of technological equipment will be lowered. Yet the eligible technological alternatives are rather limited by the fact that the contemporary production processes require a certain minimum of equipment below which it is not possible to produce. But even when these requirements are satisfied, it is possible that in the national economy or in the modern sector the average of the technological equipment becomes lower during growth. This may occur, for instance, in such countries where at present the modern sector consists mainly of mining and rudimentary processing (e.g. sorting, washing, concentrating of ores or other minerals). In this case, the average level of technological equipment must be relatively high. If in the future, e.g. the food or light industries will be developed in order to utilize the manpower reserves, the average of technological equipment may become less because these industries require relatively few equipment.

When manpower reserves are available it is generally not reasonable to raise the technical equipment of labour, in other words, when there is unemployment, it is not expedient to build, for instance automated plants. There are, of course, exceptions to this rule.

sector. This can be calculated by dividing the expected net investment of the plan period by the expected capital intensity (for calculating the latter the major single projects may give orientation since they must contain the number of workers necessary for their operation).

*Example:*

In 1965 labour productivity (that is, annual national income per workers) in the modern sector was MU 1,000. The average value of the capital intensity was MU 4,000. The investments of the plan period 1966-70 amount to MU 500 million. The increment of the national income of the modern sector will be, according to Formula (4),

$$\Delta Y_1 = \Delta L_1 p_1,$$

where

$$p_1 = \text{MU } 1,000,$$

$$\Delta L_1 = \frac{\text{investments}}{\text{capital intensity}} = \frac{\text{MU } 500 \text{ million}}{\text{MU } 4,000} = 125,000 \text{ workers}.$$

This number, multiplied by the labour productivity (MU 100), gives the increment of national income in the modern sector:

$$\Delta Y_1 = 125,000 \times 1,000 = \text{MU } 125 \text{ million}.$$

In 1965, the national income generated in the modern sector was MU 700 million; the income of the traditional sector was 300 million, which is assumed to remain unchanged. Thus, national income will rise, against MU 700 + 300 = 1,000 million in 1965, to MU 825 + 800 = 1,125 million, that is, by 12.5 per cent in five years.

### Economic Growth Resulting from Imported Investment Goods

In an economy without a substantial domestic heavy industry the investments and the economic growth largely depend on imported capital goods. In such cases the most suitable formula for the approximate calculation of the increment in the national income is

$$\Delta Y = \frac{J}{k} = \frac{I_i}{k} \quad (5)$$

where

- $J$  = investments,
- $I_i$  = the import of investment goods,
- $k$  = capital coefficient.<sup>5</sup>

Naturally this is a crude approximation. Investment never consists exclusively of imported capital goods, but contains some home-produced raw materials, e.g. stone, brick, as well as the labour of the workers realising the investment. Therefore generally  $J > I_i$ . On the other hand of the imported capital may be used to replace depreciated capital.

The total of imports ( $I$ ) consists of two parts — of the *import of the investment goods* ( $I_i$ ) and of the *import of the consumer goods* as well as of the *raw materials* used and the *semi-finished products* ( $I_c$ ):

$$I = I_i + I_c \quad (6)$$

Let us assume that the import of the consumer goods as well as of the raw materials and semifinished goods increase parallel to the national income<sup>6</sup>:

<sup>5</sup> When importing capital goods, the capital coefficient may undergo particularly heavy changes because in this case the structure of the investments may be modified within a much wider range than when home-made capital goods are invested.

<sup>6</sup> The national income and  $I_i$  do not necessarily grow at the same rate. It may occur, for instance, that—on account of the rise and changing structure of demand—the import of consumer goods grows faster than the national income. This should always be taken into account by correcting the value of  $I_i$ .

$$I_c = i_c (Y + \Delta Y) \quad (7)$$

where  $i_c$  is a coefficient expressing the share of this group of imports in the national income. If, for instance,  $i_c = 0.05$ , this means that this type of import makes up 5 per cent of the national income.

If the expectable development of the export, as well as the anticipated amount of imported foreign capital are known, Formulae (5), (6) and (7) can be used to calculate the expected growth of the national income.

Let  $E$  be the sum total of foreign currency to be obtained via exports and foreign capital import, and let us assume that  $E$  equals  $I$ . If the minor elements of the balance of payments are disregarded, then

$$E = I = I_1 + I_c = I_1 + i_c (Y + \Delta Y). \quad (8)$$

By expressing  $\Delta Y$  in the form of Formula (5), we obtain

$$E = I_1 + i_c \left( Y + \frac{I_1}{k} \right). \quad (9)$$

For the sum that can be assigned to imports of investment goods, we have

$$I_1 = \frac{E - i_c Y}{1 + \frac{i_c}{k}}. \quad (10)$$

Having thus obtained  $I_1$ , the increment of the national income can be calculated from Formula (5).

The necessary statistical data: Exports and foreign loans and aids can be estimated on the basis of the situation on the world market, of political considerations, etc. The import needs can be obtained by determining the ratio of the value of consumer goods, raw materials and semifinished goods imported during the basis period to the national income, and the extent and direction of the changes in this ratio may be also estimated (it may increase on account of higher demands or decrease as a result of an import-restricting policy, etc.).

#### Examples:

(a) In 1965 the national income amounted to MU 1,000 million. Six per cent of it was assigned to the import of consumer goods, raw materials and semifinished goods. The export anticipated for the next five-year period amounts to MU 350 million. During the same years foreign loans, aids, etc. are expected to attain MU 300 million. The capital coefficient,  $k = 4$ . What will be the increment of the national income by 1970 under such conditions?

According to Formula (10) the sum to be assigned to the import of investment goods,

$$I_1 = \frac{650 \text{ million} - 6/100 \times 1,000 \text{ million} \times 5}{1 + \frac{6/100}{4}} = \frac{350 \text{ million}}{1.015} = 345 \text{ million}.$$

(The second member of the numerator is to be multiplied by 5 because we have a five-year plan in mind.)

If no investment goods are being produced at home, the expected increment of the national income by 1970 will be, according to Formula (5)

$$\Delta Y = \frac{350 \text{ million}}{4} = 87,500,000.$$

The increment over the five years:

$$y = \frac{87.5}{1,000} = 8.75 \text{ per cent.}$$

Since this increment is very small, efforts are made to increase it. This is shown by the following examples:

(b) More foreign loans can be planned, namely, MU 700 million instead of 300 million during the five years. In this case the import that can be used for investments will be

$$I_1 = \frac{1,050 \text{ million} - 6/100 \times 1,000 \text{ million} \times 5}{1 + \frac{6/100}{4}} = \frac{650 \text{ million}}{1.015} = \text{MU } 640 \text{ million.}$$

The increase of the national income:

$$\Delta Y = \frac{640 \text{ million}}{4} = \text{MU } 160 \text{ million.}$$

The increment of the national income during the five years

$$y = \frac{162.5}{1,000} = 16 \text{ per cent.}$$

(c) The sum of foreign loans cannot be increased, whence we come back to the conditions of Example (a) but we shall reduce the imports of consumer goods, raw materials and semi-finished goods (by restricting luxury consumption) from 6 to 5 per cent of the national income. In this case the import to be used for investment will be:

$$\begin{aligned} I_1 &= \frac{650 \text{ million} - 5/100 \times 1,000 \text{ million} \times 5}{1 + \frac{5/100}{4}} = \\ &= \frac{650 \text{ million} - 250 \text{ million}}{1.0125} = \text{MU } 395 \text{ million.} \end{aligned}$$

The increment of the national income:

$$\Delta Y = \frac{395 \text{ million}}{4} = \text{MU } 98,750,000, \text{ or } 9.88 \text{ per cent.}$$

(d) Under the conditions of Example (c), let us assume that 25 per cent of the necessary investment goods can be produced at home (e.g. building material is furnished by the brick and cement works of the country, etc.). Thus all foreign currency assigned to investment can be used for the purchase of machines and equipment. Since 25 per cent of the investment goods comes from domestic production, only 75 per cent is to be covered from the 390 million monetary units. Thus the sum to be invested can be extended:

$$I_1 = 395 + \left( \frac{25\%}{75\%} \times 395 \right) = \text{MU } 527 \text{ million.}$$

The increase in the national income will be  $\Delta Y = \frac{527 \text{ million}}{4} = \text{MU } 132 \text{ million, or } 13 \text{ per cent.}$



## A Multisector Planning Model

One-sector models are too simplified and abstract to be used for more than a preliminary calculation of the growth possibilities. Planning going beyond this requires a model breaking down the economy into several sectors and revealing thereby their relations. This will show to what extent the growth of a sector is conditioned by that of the others. Our multisector planning model is based on the input-output table and describes the proportions to be secured between the different sectors of the national economy to keep the national economy in equilibrium.

The following description of the model consists of two parts. In the first part we describe the *static* input-output table showing the nature of the current (not investment) inputs which are required by the gross output of the various sectors from the other sectors. This balance must be elaborated on the ground of the data of the basis period (if possible, of several years), and also for the last year of the plan. In the second part we describe a *dynamic* input-output table showing the production of investment goods required from the various sectors for the increase of the sectoral production capacities scheduled for the end of the plan period. This enables us to measure how far the production outlined in the first step can be secured from domestic investments and how far imports will have to be relied upon.

### 1. Co-ordinated Production of the Various Sectors: Static Input-Output Balance

The model is based on a simplified input-output table (see pp. 590 and 591) consisting of three parts:

A) *The internal matrix* (the framed part of the Table on p. 590) expresses the shipments between the different producing sectors, for instance, the value of the products of mining used in the production of the heavy industry. The number of sectors figuring in the internal matrix may vary from a few to a hundred or more. In our model the number of the sectors cannot be higher than about ten because if they exceed this number the computations are so complicated that they cannot be performed without an electronic computer and even the results cannot be followed without higher mathematical qualification. The sectors should be selected so that their production should be as homogeneous as possible (complete homogeneity cannot be achieved even in tables containing hundred sectors because this would require each sector to produce one single type of commodity). We shall use here eight sectors, but our model can be completed according to the requirements of the given national economy or certain sectors can be combined.<sup>7</sup> Our eight producing sectors are as follows:

- a) mining,
- b) power production,
- c) building industry,
- d) heavy industry,
- e) light industry,
- f) agriculture producing for export,
- g) agriculture producing for the internal market,<sup>8</sup>
- h) traditional sector.<sup>9</sup>

<sup>7</sup> If, for instance, in the economy of a country, a certain branch of production has acquired particular importance (e.g. oil extraction, aluminium industry, etc.), it may be treated as a separate sector. On the other hand, the building industry, for instance, may be brought under the heading of the heavy industry, or else the heavy industry may be omitted altogether if its production is not significant, etc.

<sup>8</sup> Within agriculture three sectors are distinguished: agriculture producing for export, which usually has a monocultural character and has to be adapted virtually to the demands of foreign markets (e.g. cocoa growing); agriculture providing for the domestic market, whose production is meant to meet the food demand of the non-agricultural population, and finally the traditional sector, consuming its own production and not feeding the market.

<sup>9</sup> For the traditional sector, see p. 585.

*The Static*

	Mining	Power production	Building industry	Heavy industry	Light industry	Agriculture producing for		Traditional sector
						export	market	
1. Mining	$x_{1,1}$	$x_{1,2}$	$x_{1,3}$	$x_{1,4}$	$x_{1,5}$	$x_{1,6}$	$x_{1,7}$	$x_{1,8}$
2. Power production	$x_{2,1}$	$x_{2,2}$	$x_{2,3}$	$x_{2,4}$	$x_{2,5}$	$x_{2,6}$	$x_{2,7}$	$x_{2,8}$
3. Building industry	$x_{3,1}$	$x_{3,2}$	$x_{3,3}$	$x_{3,4}$	$x_{3,5}$	$x_{3,6}$	$x_{3,7}$	$x_{3,8}$
4. Heavy industry	$x_{4,1}$	$x_{4,2}$	$x_{4,3}$	$x_{4,4}$	$x_{4,5}$	$x_{4,6}$	$x_{4,7}$	$x_{4,8}$
5. Light industry	$x_{5,1}$	$x_{5,2}$	$x_{5,3}$	$x_{5,4}$	$x_{5,5}$	$x_{5,6}$	$x_{5,7}$	$x_{5,8}$
6. Agriculture producing for export	$x_{6,1}$	$x_{6,2}$	$x_{6,3}$	$x_{6,4}$	$x_{6,5}$	$x_{6,6}$	$x_{6,7}$	$x_{6,8}$
7. Agriculture producing for market	$x_{7,1}$	$x_{7,2}$	$x_{7,3}$	$x_{7,4}$	$x_{7,5}$	$x_{7,6}$	$x_{7,7}$	$x_{7,8}$
8. Traditional sector	$x_{8,1}$	$x_{8,2}$	$x_{8,3}$	$x_{8,4}$	$x_{8,5}$	$x_{8,6}$	$x_{8,7}$	$x_{8,8}$
9. Imports	$x_{9,1}$	$x_{9,2}$	$x_{9,3}$	$x_{9,4}$	$x_{9,5}$	$x_{9,6}$	$x_{9,7}$	$x_{9,8}$
10. Wages	$x_{10,1}$	$x_{10,2}$	$x_{10,3}$	$x_{10,4}$	$x_{10,5}$	$x_{10,6}$	$x_{10,7}$	$x_{10,8}$
11. Income tax from enterprises	$x_{11,1}$	$x_{11,2}$	$x_{11,3}$	$x_{11,4}$	$x_{11,5}$	$x_{11,6}$	$x_{11,7}$	$x_{11,8}$
12. Profits	$x_{12,1}$	$x_{12,2}$	$x_{12,3}$	$x_{12,4}$	$x_{12,5}$	$x_{12,6}$	$x_{12,7}$	$x_{12,8}$
Grand total	$X_1$	$X_2$	$X_3$	$X_4$	$X_5$	$X_6$	$X_7$	$X_8$

The internal matrix is filled in by indicating the amount of products (in value or natural units) of a given sector used by other sectors (horizontal row). The second figure (vertical column) indicates the amount of products used by the given sector from the production of the other sectors.<sup>10</sup>

*Example:*

Let us suppose that the light industry has used the following inputs from the products of the other sectors (in millions of monetary units):

energy (power)	5
products of the heavy industry (overhaul, spare parts, materials)	10
products of the light industry	10
agricultural products (from the sector producing for the market)	60

Products of mining and of the building industry, those of agriculture producing for export and of the traditional sector were not used. The above figures are put into the corresponding squares, and where no products were used, zero is inserted.

<sup>10</sup> The input-output tables can be expressed in natural units of measurement or in money. When expressing them in natural units, the table will contain such items as, for instance, the tons of steel used in the light industry etc. When expressing them in money, we write, for instance, the value (in monetary units) of heavy-industry products utilized in the light industry. Although the table of natural units provides valuable information, for more intricate calculations and for planning purposes the tables of monetary units are used almost exclusively. All tables in the forthcoming examples will be monetary-unit tables.

Input-Output Table

Ex-ports	Con-sump-tion of prime neces-sities	Con-sump-tion of luxury goods	Private invest-ments	State invest-ments	Invest-ments for infra-structure	Admin-istration	Educa-tion	Total
$x_{1,13}$	$x_{1,14}$	$x_{1,15}$	$x_{1,16}$	$x_{1,17}$	$x_{1,18}$	$x_{1,19}$	$x_{1,20}$	$X_1$
$x_{2,13}$	$x_{2,14}$	$x_{2,15}$	$x_{2,16}$	$x_{2,17}$	$x_{2,18}$	$x_{2,19}$	$x_{2,20}$	$X_2$
$x_{3,13}$	$x_{3,14}$	$x_{3,15}$	$x_{3,16}$	$x_{3,17}$	$x_{3,18}$	$x_{3,19}$	$x_{3,20}$	$X_3$
$x_{4,13}$	$x_{4,14}$	$x_{4,15}$	$x_{4,16}$	$x_{4,17}$	$x_{4,18}$	$x_{4,19}$	$x_{4,20}$	$X_4$
$x_{5,13}$	$x_{5,14}$	$x_{5,15}$	$x_{5,16}$	$x_{5,17}$	$x_{5,18}$	$x_{5,19}$	$x_{5,20}$	$X_5$
$x_{6,13}$	$x_{6,14}$	$x_{6,15}$	$x_{6,16}$	$x_{6,17}$	$x_{6,18}$	$x_{6,19}$	$x_{6,20}$	$X_6$
$x_{7,13}$	$x_{7,14}$	$x_{7,15}$	$x_{7,16}$	$x_{7,17}$	$x_{7,18}$	$x_{7,19}$	$x_{7,20}$	$X_7$
$x_{8,13}$	$x_{8,14}$	$x_{8,15}$	$x_{8,16}$	$x_{8,17}$	$x_{8,18}$	$x_{8,19}$	$x_{8,20}$	$X_8$

The next step is to calculate the coefficients of the current inputs. The coefficient of direct input shows the value of products used from the production of the various sectors for the unit production of the sector in the column. These values are obtained by dividing the values in the squares by the sum total of the corresponding column. For instance, if the output of the light industry totals MU 200 million, the current input coefficients, considering the utilization of the products as given in the above example, will be the following (products of sectors, in MU, necessary in order to produce MU 1 output by the light industry):

power	$5/200 = 0.025$
heavy industry	$10/200 = 0.05$
light industry	$10/200 = 0.05$
agriculture (for market)	$60/200 = 0.3$

The coefficients of current inputs thus obtained are written in the same form as is the internal matrix of the input-output balance, and this yields the matrix of the current input coefficients.<sup>11</sup>

<sup>11</sup> The current input coefficients thus obtained express only the immediate or direct input needs of the various sectors. They do not contain the input needs deriving from the necessity of further inputs from various sectors in order to achieve the direct inputs and so on. Thus, in the above example we have neglected the products of mining used in the production of the light industry, although for the output of the heavy-industry products figuring on the list also a certain amount of coal, oil, ores etc. are needed. In its turn, mining also requires, in order to produce these, an amount of goods produced by the heavy and the light industries, etc., These propagating effects cannot be closely followed endlessly. But with the help of a mathematical device (inversion) the matrix of the current input coefficient obtained from the inner matrix as described above can be turned into the inverse matrix of input coefficients or total input coefficients. The latter will then show the amount of input from all other sectors (including the multiplying effects mentioned) necessary for the unit production in the individual sectors. In a similar way, all import needs, including the multiplying effects, are expressed by the inverse coefficient of import inputs. Matrixes of such size can easily be inverted with the help of manual computers. The mathematical procedure is not described here.

It should be mentioned that the input coefficients obtained with the method described above based on data from the past, must not be expected to remain unchanged in the future. They may be modified by the technological progress, the better organization of production and also by changes in the production structure within a sector.

B) *The lower wing* (of the Table on p. 590) contains the production inputs of the sectors not deriving from the other producing sectors. Such items are:

- a) The amount of imported material used for production.
- Two more items should be added figuring in the total value of the sector production:
- b) The amount of labour used for production, this is represented by the wages paid.
- c) Tax withdrawals from the sector.
- d) The profit of the enterprises.<sup>12</sup>

Of these items the import should be given, to a certain degree, a special treatment since part of the import is not used by the producing sectors but goes directly for final consumption (figuring in the right wing of the Table on p. 591).

The necessary statistical data: The lower wing is filled in by writing the import inputs of the sectors in the corresponding squares, as well as the wages paid, the taxes paid and the profits of the enterprises belonging to that sector.

*Example:*

Continuing the above example of the light industry, let us write the following data in the balance (in millions of monetary units):

imports used in production	10
wages paid	60
taxes paid	15
profits earned by enterprises	30

In this case the complete accounts of the column of the light industry will be (in MU millions):

power input	5
products of the heavy industry	10
products of the light industry	10
agricultural products	60
import input	10
wages	60
taxes	15
profits	30
total	200

The current-input coefficients, that is, those of imports, wages, taxes and profits can be calculated also on the lower wing.

*Example:*

Unit production in the light industry requires

- import inputs  $10/200 = 0.05$  monetary unit,
- wages inputs  $60/200 = 0.3$  monetary unit.

Unit production in the light industry is moreover associated with

- taxes  $15/200 = 0.075$  monetary unit,
- profit  $30/200 = 0.15$  monetary unit.

<sup>12</sup> The lower wing should include also amortization. Owing to the difficulties of its calculation and to the fact that it does not amount very high in countries having a young industry, we have neglected amortization for simplicity's sake. Otherwise it would reduce enterprise profits.

C) *The right wing* (of the Table on p. 591) contains the part of sector production which is not used by the various productive sectors but goes in what is referred to as final consumption. The parts of sector production issued toward final consumption are as follows:

- a) Exports.
- b) Private consumption, divided in our model into staple consumption and luxury consumption.<sup>13</sup>
- c) Investments, divided in our model into three parts: private investments, productive state investments and infrastructural investments.<sup>14</sup>
- d) Means used in state and local administration, social and sanitary expenditures and investments, construction of apartments and other communal consumption.
- e) Means used in education.<sup>15</sup>

The necessary statistical data: The amounts used from sector production for the various fields of final consumption, investment, etc.

*Example:*

Let us continue the above example of the light industry. Its output has been divided, in the following manner (MU millions):

in the internal matrix:

mining	5
power production	—
building industry	10
heavy industry	5
light industry	10
agriculture (all three branches)	—

for final consumption:

export	30
staple consumption	110
luxury consumption	20
used by the state apparatus	5
used by the educational system	5
total	200

<sup>13</sup> This two-fold division of consumption is reasonable for the developing countries because staple consumption can hardly be reduced when economic growth is accelerated (it would involve the deterioration of the health and working capacity of the whole population) whereas for the reduction of luxury consumption there are no economic obstacles, except possibly some political considerations (the class whose consumption is reduced may become hostile to the existing regime). This distinction may be relevant also for imports: those of staple goods can only be reduced if home production is raised correspondingly, but luxury imports—in the case of foreign-trade difficulties—can be curtailed.

<sup>14</sup> Termed infrastructural are those investment types as do not increase production directly but are indirectly necessary for production growth. Such are the transport investments (building of roads, bridges, railways, ports, etc.), except for the case when certain services of transport are included in the national income. Such items are, moreover, the construction of irrigation canals, high dams, etc. The distinction between productive (private and state-managed), and infrastructural investments is, naturally, not invariably unequivocal because some infrastructural investments may have a direct impact on production (e.g. the construction of irrigational systems) and also because a certain amount of infrastructural investment is indispensable for the operational efficiency of production investments (e.g. new road is to be built to a new factory). Nevertheless it is reasonable and practical to assume a more or less constant ratio of production investments to infrastructural investments in a given economy and at a given level of development.

<sup>15</sup> The part assigned to education is given separately because later the needs of education and training elicited by economic growth will be assessed, and these needs can only be met from what is assigned to education and training.

The right-hand side is analysed in greater detail because these items affect the growth process in various ways, and the growth rate can be influenced by regrouping these items.

## 2. The Mathematical Formulation of the Model

The sum of the sector inputs in various columns and the sum of the outputs utilized in the various rows will obviously be the same. In other words, each row expresses the national product produced in a sector and each column shows the distribution of a sector's output. The sums of these two are obviously identical, provided the foreign-trade balance is in equilibrium. These equalities are expressed by what are called the balance equations whose form is the following:

$$\sum_{i=1}^{i=8} x_{ij} + \sum_{i=9}^{i=12} x_{ij} = \sum_{i=1}^{i=8} x_{ij} + \sum_{i=13}^{i=20} x_{ij} \quad (11)$$

that is, the inputs in the internal matrix + the inputs in the lower wing = the outputs internal matrix + the final outputs in the right wing.

For the symbols, see the Table on pp. 590 and 591.

*Example:*

For the light industry, Formula (11) will assume the following form:

$$\sum_{i=1}^{i=8} x_{i,5} + \sum_{i=9}^{i=12} x_{i,5} = \sum_{i=1}^{i=8} x_{5,i} + \sum_{i=13}^{i=20} x_{5,i}$$

or in a more detailed form:

$$\begin{aligned} (x_{1,5} + x_{2,5} + x_{3,5} + x_{4,5} + x_{5,5} + x_{6,5} + x_{7,5} + x_{8,5}) + (x_{9,5} + x_{10,5} + x_{11,5} + x_{12,5}) = \\ = (x_{5,1} + x_{5,2} + x_{5,3} + x_{5,4} + x_{5,5} + x_{5,6} + x_{5,7} + x_{5,8}) + \\ + (x_{5,13} + x_{5,14} + x_{5,15} + x_{5,16} + x_{5,17} + x_{5,18} + x_{5,19} + x_{5,20}) \end{aligned}$$

where

- $x_{1,5}$  = light-industry input deriving from mining,
- $x_{2,5}$  = light-industry input deriving from power production, etc.
- ...
- $x_{9,5}$  = light-industry input deriving from import,
- $x_{10,5}$  = light-industry input deriving from wages,
- $x_{11,5}$  = light-industry taxes,
- $x_{12,5}$  = profits of light-industrial enterprises,
- $x_{5,1}$  = light-industry output to mining,
- $x_{5,2}$  = light-industry output to power production, etc.
- ...
- $x_{5,13}$  = export of products of light industry,
- $x_{5,14}$  = staple consumption of products of light industry, etc.

According to the numerical example above, the balance equation of the light industry is:

$$\begin{aligned} (0 + 5 + 0 + 10 + 10 + 0 + 60 + 0) + (10 + 60 + 15 + 30) = \\ = (5 + 0 + 10 + 5 + 10 + 0 + 0 + 0) + (30 + 110 + 20 + 0 + 0 + 0 + 5 + 5) \end{aligned}$$

that is

$$200 = 200.$$

But Equation (11) can be written in a simpler form by using the coefficients of current inputs:

$$\sum_{i=1}^{i=8} a_{ij} X_i + \sum_{i=9}^{i=12} a_{ij} X_i = \sum_{i=1}^{i=8} a_{ij} X_i + \sum_{i=13}^{i=20} x_{ij} \quad (11a)$$

where

- $X_j$  = aggregate output of sector  $j$ ,  
 $X_i$  = aggregate output of sector  $i$ ,  
 $a_{i,j}$  = coefficient of current inputs,  
 $a_{i,j}$  ( $i = 1, 2, \dots, 8$ ) = the necessary input from sector  $i$  for unit production in sector  $j$ ,  
 $a_{i,j}$  ( $i = 9, 10, 11, 12$ ) = the coefficient of current inputs showing the import and wages input necessary for, and the tax and profit falling to, the unit production of the sector,  
 $a_{i,j}$  ( $j = 1, 2, \dots, 8$ ) = the coefficient of current inputs showing the necessary input from sector  $j$  for the unit production in sector  $i$ ,  
 $x_{i,j}$  ( $j = 13, \dots, 20$ ) = final output of sector  $j$  (final utilization of the products from sector  $j$ ).

*Example:*

For the light industry, the sector Equation (11a) is as follows:

$$\sum_{i=1}^{i=8} a_{i,5} X_i + \sum_{i=9}^{i=12} a_{i,5} X_i = \sum_{i=1}^{i=8} a_{5,i} X_i + \sum_{i=13}^{i=20} x_{5,i}$$

or in a more detailed form:

$$\begin{aligned} & (a_{1,5} X_1 + a_{2,5} X_2 + a_{3,5} X_3 + a_{4,5} X_4 + a_{5,5} X_5 + a_{6,5} X_6 + a_{7,5} X_7 + a_{8,5} X_8) + \\ & + (a_{9,5} X_9 + a_{10,5} X_{10} + a_{11,5} X_{11} + a_{12,5} X_{12}) = (a_{5,1} X_1 + a_{5,2} X_2 + a_{5,3} X_3 + a_{5,4} X_4 + \\ & + a_{5,5} X_5 + a_{5,6} X_6 + a_{5,7} X_7 + a_{5,8} X_8) + (x_{5,13} + x_{5,14} + x_{5,15} + x_{5,16} + x_{5,17} + \\ & + x_{5,18} + x_{5,19} + x_{5,20}), \end{aligned}$$

where the  $a$ -s stand for the various coefficients of current inputs, for instance,

- $a_{1,5}$  = the value of mining products necessary for the unit production of the light industry,  
 $a_{2,5}$  = the value of power necessary for the unit production of the light industry,  
 $\dots$   
 $a_{5,1}$  = the value of light-industry products necessary for the unit production in mining,  
 $a_{5,2}$  = the value of light-industry products necessary for the unit production in the power sector,  
 $\dots$   
 $a_{9,5}$  = the value of imported goods necessary for the unit production of the light industry,  
 $a_{10,5}$  = the value of wages necessary for the unit production of the light industry,  
 $a_{11,5}$  = the value of taxes falling to the unit production in light industry,  
 $a_{12,5}$  = the value of profits falling to the unit production in light industry.

The figures from the numerical example above can be used to construct only the left-hand side of the equation because the production of the sectors other than light industry is not known, whence the coefficients of current inputs showing the light-industry input for the unit production of the other sectors cannot be calculated. Let us assume that the production of the other sectors is as follows (MU millions):

mining	$X_1 = 200$
power production	$X_2 = 100$
building industry	$X_3 = 150$
heavy industry	$X_4 = 150$
agriculture producing for export	$X_6 = 100$
agriculture producing for market	$X_7 = 300$
traditional sector	$X_8 = 300$

(the production of the light industry is known to be MU 200 million).

Accordingly (taking into account the outputs of the light industry given on p. 593) the current-input coefficients showing the value of light-industry products necessary for the unit production in the other sectors are as follows (in MU):

mining:	$a_{5,1} = 5/200 = 0.025$
power production:	$a_{5,2} = 0/100 = 0.00$
building industry:	$a_{5,3} = 10/150 = 0.067$
heavy industry:	$a_{5,4} = 5/150 = 0.033$
light industry:	$a_{5,5} = 10/200 = 0.05$

The three agricultural sectors do not use products of the light industry whence their coefficients of current inputs equal zero

$$a_{6,5} = a_{7,5} = a_{8,5} = 0.00.$$

According to these figures, the balance equation of the light industry in our example is

$$\begin{aligned}
 & (0 \times 200 + 0.025 \times 200 + 0 \times 200 + 0.05 \times 200) + \\
 & + (0.05 \times 200 + 0 \times 200 + 0.3 \times 200 + 0 \times 200) + \\
 & + (0.05 \times 200 + 0.3 \times 200 + 0.075 \times 200 + 0.15 \times 200) = \\
 & = (0.025 \times 200 + 0 \times 100 + 0.067 \times 150 + 0.033 \times 150 + \\
 & + 0.05 \times 200 + 0 \times 200 + 0 \times 200 + 0 \times 200) + \\
 & + (30 + 110 + 20 + 0 + 0 + 0 + 5 + 5),
 \end{aligned}$$

that is

$$200 = 200.$$

### 3. The Dynamic Treatment of the Multisector Planning Model

The multisector planning model described in the previous section can be used to find out whether the structure of the national economy we are planning to be achieved within five or ten years has its internal harmony, i.e. whether the production of the sectors can meet the needs of the other sectors fully but also without left-overs which could not be economically utilized. We must, of course, realize that we have calculated with constant technological coefficients since we have taken these from the statistical data of a past period. This was a necessity connected with the relative simplicity of our model. In reality, however, these coefficients may change considerably in the plan period. The investment coefficients obviously also belong to a given historical investment level and structure and can be applied in our plans only within a restricted range.

In order to elaborate a plan of economic growth broken down to sectors and in order to measure all preconditions and effects of the development plan of the various sectors, it is



necessary to construct an input-output balance, similar to the above, but showing the inputs required by the planned greater production capacities of the various sectors beside the inputs necessary for the present level of production.

For this purpose we use the dynamic input-output balance, or the input-output table of capital expenditures. This balance is similar to the Table on pp. 590 and 591, but only consists of an internal matrix. The figures in the columns indicate the inputs of products coming from other sectors, necessary for the unit growth of the production capacity of the sector in that column. The starting point is again a table compiled on the basis of the technological data of the past year or years and showing the share of production of the sectors used for the investments into other sectors (cf. the Table below).<sup>16</sup>

*Matrix of Investment Inputs*

Sectors putting out investment products	Investing sectors								Total output from the given sector for investment purposes
	1	2	3	4	5	6	7	8	
1. Mining	$B_{1,1}$	$B_{1,2}$	$B_{1,3}$	$B_{1,4}$	$B_{1,5}$	$B_{1,6}$	$B_{1,7}$	$B_{1,8}$	$x_{1,16} + x_{1,17}$
2. Power production	$B_{2,1}$	$B_{2,2}$	$B_{2,3}$	$B_{2,4}$	$B_{2,5}$	$B_{2,6}$	$B_{2,7}$	$B_{2,8}$	$x_{2,16} + x_{2,17}$
3. Building industry	$B_{3,1}$	$B_{3,2}$	$B_{3,3}$	$B_{3,4}$	$B_{3,5}$	$B_{3,6}$	$B_{3,7}$	$B_{3,8}$	$x_{3,16} + x_{3,17}$
4. Heavy industry	$B_{4,1}$	$B_{4,2}$	$B_{4,3}$	$B_{4,4}$	$B_{4,5}$	$B_{4,6}$	$B_{4,7}$	$B_{4,8}$	$x_{4,16} + x_{4,17}$
5. Light industry	$B_{5,1}$	$B_{5,2}$	$B_{5,3}$	$B_{5,4}$	$B_{5,5}$	$B_{5,6}$	$B_{5,7}$	$B_{5,8}$	$x_{5,16} + x_{5,17}$
6. Agriculture producing for export	$B_{6,1}$	$B_{6,2}$	$B_{6,3}$	$B_{6,4}$	$B_{6,5}$	$B_{6,6}$	$B_{6,7}$	$B_{6,8}$	$x_{6,16} + x_{6,17}$
7. Agriculture producing for market	$B_{7,1}$	$B_{7,2}$	$B_{7,3}$	$B_{7,4}$	$B_{7,5}$	$B_{7,6}$	$B_{7,7}$	$B_{7,8}$	$x_{7,16} + x_{7,17}$
8. Traditional sector	$B_{8,1}$	$B_{8,2}$	$B_{8,3}$	$B_{8,4}$	$B_{8,5}$	$B_{8,6}$	$B_{8,7}$	$B_{8,8}$	$x_{8,16} + x_{8,17}$
9. Import	$B_{9,1}$	$B_{9,2}$	$B_{9,3}$	$B_{9,4}$	$B_{9,5}$	$B_{9,6}$	$B_{9,7}$	$B_{9,8}$	$x_{9,16} + x_{9,17}$
Gross investments in the given sector	$B_1$	$B_2$	$B_3$	$B_4$	$B_5$	$B_6$	$B_7$	$B_8$	

The symbols in the table are the following:

$B_j$  ( $j = 1, 2, \dots, 8$ ) = total investment in sector  $j$ ,

$B_{i,j}$  ( $i, j = 1, \dots, 8$ ) = value of products from sector  $i$  invested in sector  $j$ ,

$x_{i,16} + x_{i,17}$  ( $i = 1, \dots, 8$ ) = the value of sector  $i$  products, to be used for investment purposes (both by the state and by privates); taken from the Table on pp. 590 and 591.

<sup>16</sup> In countries where the majority and the most important part of investments rely on import, the investment matrix does not yield sufficient information for the planner. Most of the developing countries, no doubt, belong to this category.

The *columns* in the Table on p. 597 show that the sectoral investment is the aggregate value of the products manufactured in the various sectors and invested in the sector in question:

$$B_i = \sum_{j=1}^{i=8} B_{i,j}. \quad (12)$$

The *rows* in the Table on p. 597 show that the aggregate value of products used for private and state investments from the various sectors is the amount of products used for investments in the various sectors:

$$x_{i,16} + x_{i,17} = \sum_{j=1}^{i=8} B_{i,j}. \quad (13)$$

The necessary statistical data: To fill in the table of investment inputs statistical data should be available on the amount of the products of certain sectors used for investments in the various sectors. It is usually difficult to obtain relevant information, namely, to distinguish the current production inputs from the investment inputs (i.e. the figures to be inserted in the tables. If data are lacking, estimations can be made on the basis of technical data. It is possible, for instance, to estimate the value of products coming from the heavy industry, building industry etc. which are necessary for building a new textile (light industrial) plant.

*Example:*

In the preceding five years the value of investments in the heavy industry was MU 200 million. The following amounts of products were used for this purpose from the various sectors (in MU millions):

mining	0
power production	0
building industry	100
heavy industry	50
light industry	50
the three agricultural sectors	0
total	200

On the other hand, from the production of the heavy industry amounting to MU 550 million during the five years, MU 500 million were used for investments in:

	MU million
mining	50
power production	40
the building industry	30
the heavy industry	50
the light industry	130
agriculture producing for export	100
agriculture producing for market	100
total	500

Both Equations (12) and (13) can be written in a form containing the coefficients of investment input (similar to the coefficients of the current inputs) showing the value of products coming from the various sectors which must be invested in order to attain the unit growth of the production capacity of the given sector.

If we do so, Equation (12) will assume the following form:

$$B_j = \sum_{i=1}^{i=8} b_{i,j} \Delta X_i \quad (12a)$$

where

$b_{i,j}$  = coefficient of investment inputs,

$B_j$  = total investment in sector  $j$ ,

$\Delta X_j$  = growth of the annual production capacity of sector  $j$ .

In a more detailed form:

$$B_j = b_{1,j} \Delta X_1 + b_{2,j} \Delta X_2 + b_{3,j} \Delta X_3 + b_{4,j} \Delta X_4 + b_{5,j} \Delta X_5 + b_{6,j} \Delta X_6 + b_{7,j} \Delta X_7 + b_{8,j} \Delta X_8 \quad (12b)$$

where

$b_{1,j}$  = input of mining products necessary for the unit growth of the production capacity of sector  $j$ , etc.

Equation (13) will assume the following form:

$$x_{i,16} + x_{i,17} = \sum_{i=1}^{i=8} b_{i,i} \Delta X \quad (13a)$$

or in greater detail:

$$x_{i,16} + x_{i,17} = b_{i,1} \Delta X_1 + b_{i,2} \Delta X_2 + b_{i,3} \Delta X_3 + b_{i,4} \Delta X_4 + \\ + b_{i,5} \Delta X_5 + b_{i,6} \Delta X_6 + b_{i,7} \Delta X_7 + b_{i,8} \Delta X_8 \quad (13b)$$

where

$b_{i,j}$  = input of the products of sector  $i$  necessary for the unit growth of the production capacity of mining, etc.

The necessary statistical data: The investment input coefficients are obtained by dividing the amount of products used in a given sector as investment input from the various sectors by the annual production capacity of the sector in question:

*Example:*

In the above-described example of the heavy industry let us calculate the numerical form of Equations (12b) and (13b) if the growth of the production capacity in the various sectors is as follows (MU millions):

mining	100
power production	100
building industry	150
heavy industry	120
light industry	250
agriculture producing for export	200
agriculture producing for market	300
traditional sector	100

Accordingly, for the products of the heavy industry to be invested into the other sectors the following investment input coefficients can be established:

the value (in MU) of the heavy-industry products necessary for the unit growth of the production capacity of:

mining is	$b_{4,1} = 50/100 = 0.5$
power production is	$b_{4,2} = 40/100 = 0.4$
the building industry is	$b_{4,3} = 30/150 = 0.2$
the heavy industry is	$b_{4,4} = 50/120 = 0.42$
the light industry is	$b_{4,5} = 130/250 = 0.52$
agriculture producing for export is	$b_{4,6} = 100/200 = 0.5$
agriculture producing for market is	$b_{4,7} = 100/300 = 0.33$
the traditional sector is	$b_{4,8} = 0/100 = 0.0$ monetary units.

On the other hand, the investment input coefficients of the inputs necessary for the increase in the production of the heavy industry are as follows:

to achieve a unit growth in the production capacity of the heavy industry the following products are needed:

$b_{1,4} = 0/120 = 0.0$	from mining,
$b_{2,4} = 0/120 = 0.0$	from power production,
$b_{3,4} = 100/120 = 0.84$	from the building industry
$b_{4,4} = 50/120 = 0.42$	from the heavy industry (as is known from previous calculations)
$b_{5,4} = 50/120 = 0.42$	from the light industry
$b_{6,4} = b_{7,4} = b_{8,4} = 0/120 = 0.0$	from the three sectors of agriculture.

Relying on the above, the coefficient of all inputs necessary for the heavy-industry investments can be calculated

$$\sum_{i=1}^{i=8} b_{i,4} = \frac{0 + 0 + 100 + 50 + 50 + 0 + 0 + 0}{120} = \frac{200}{120} = 1.667.$$

In other words, 1.66 monetary units worth of investments are needed for the unit growth of the annual production capacity of the heavy industry. (This coefficient would be very favourable; in practice higher investment inputs are necessary for this purpose.)

On the basis of these coefficients, the equation of the products coming from the heavy industry serving investment purposes is the following:

$$x_{4,16} + x_{4,17} = 0.5 \times 100 + 0.4 \times 100 + 0.2 \times 150 + 0.42 \times 120 + 0.52 \times 130 + 0.5 \times 200 + 0.33 \times 300 + 0.0 \times 100 = 500.$$

The equation of the investment inputs going into the heavy industry is:

$$B_4 = B_{\text{heavy industry}} = 0.00 \times 120 + 0.0 \times 120 + 0.84 \times 120 + 0.42 \times 120 + 0.42 \times 120 + 0.0 \times 120 + 0.0 \times 120 + 0.0 \times 120 = 200.$$

#### 4. Planning on the Basis of a Multisector Model

We have now two related systems, one of them expressing the inputs necessary for current production, the other, those for investments. By using these related systems the preliminary outlines of the long-range plan can be drafted.

a) With Equation (1) we can make a realistic estimation of the expected growth rate of the national income on the basis of the disposable investment fund and the anticipated capital coefficient. If this growth rate is not satisfactory, we investigate whether it can be stepped up

by increasing the investment rate through increased domestic saving and/or with foreign loans and aids. Having established the realistic and acceptable growth rate, the next step is to calculate the national income that can be attained by the end of the plan period (five or ten years).

b) The national income thus obtained is then broken down to sectors, the total production of the various sectors is established ( $X_t$ ) and an answer is sought to the question: which sector grows quicker and which grows slower than the national income.<sup>17</sup>

c) The system of Equation (11) will help us find out whether the sectoral total production values, established in the previous step, can be co-ordinated, i.e., whether the increased production in each sector is capable of satisfying the demands due to the increased production of the other sectors, and no surpluses are left over which cannot be utilized economically.

d) It is then established, whether, after the required production inputs figuring in the internal matrix are satisfied, the remaining sums are sufficient to cover consumption demands on the right wing (as well as for infrastructure investments, administration and education). Account should be taken of the population growth, too. If the fund remaining for consumption is found insufficient or of an unsatisfactory pattern, the production of the sectors producing consumption goods should be raised.

e) The next step is the most intricate one in planning. The task now is to determine whether the investments necessary for the planned increase of the production capacity of the various sectors can be secured or not. To obtain a correct answer, the first thing to do is to find out the investment demands of the sectors by using Equation (12b), and then, to establish, by using Equation (13b), whether the investment demands can be satisfied from the present investment output of the sectors ( $x_{i,14} + x_{i,15}$ ) plus from the relevant imports. In other words: we have to find out if the given output and import of investment goods are able to cover the investments required by the planned increment of the production capacity. If the output and imports of investment goods are insufficient, ways and means should be found to make up for the shortage either by increasing the production capacity of investment goods or by accelerating the putting into operation of its planned increment.<sup>18</sup>

The investments constitute the most decisive element of economic growth. Long-range growth, however, must be ensured on the basis of equilibrium conditions. (Within a short period it is not absolutely necessary to achieve equilibrium yet even in such cases the maximum permissible imbalance should be determined, and the investments and, through them, the structure of production should be shaped so as to promote equilibrium.)

The principal requirements of equilibrium are as follows:

- a) the equilibrium of international payments,
- b) the equilibrium of the state budget,
- c) the equilibrium of the market of the consumer goods and of the investment goods.

<sup>17</sup> It is to be noted that the national income is less than the sum total of the production of the sectors, since the inputs in the internal matrix must be reduced from this sum, that is, national income will be the sum total of the items shown in the right wing of the Table on pp. 590 and 591. As a first approximation, however, it may be presumed that the national income will grow at the same rate as sum total of the gross (cumulated) production (this actually happens if the ratio of the inputs in the internal matrix to the ultimate output, as well as the production pattern remain unchanged, or the changes compensate one another). Therefore in planning the growth rate of the sectors, that of the national income may be relied upon.

<sup>18</sup> We have so far assumed that the planned increment of productive capacities will materialize but in the last year of the plan period. This is obviously a very strong simplification because investments will be implemented in each year of the plan period, and production capacities will grow gradually from year to year. This fact must be taken into account in the corrections here described. The inclusion of this effect into our model would render it too complicated. From the economico-political viewpoint, however, it is obvious that strenuous efforts must be made to accelerate the putting into operation of new capacities, and, above all, of such investments which serve to eliminate existing bottlenecks. The development of the capacities of the building industry arises some special problems. The term "capacity of the building industry" is used here in the broadest sense of the word, including the projecting organizations, the production of building materials, the capacities necessary to conduct the operations preceding construction (e.g., introduction of communal services, etc.) and construction itself. It is evident that when developing these capacities, we cannot rely on imports to the extent the development of mining or manufacturing do; most of the task must be achieved with domestic resources. It is therefore necessary to take measures in order to develop these capacities two or three years before they will be needed for the implementation of the subsequent five-year plan.

## Further Conditions to Be Satisfied by the Long-range Plan

### 1. The Equilibrium of the Balance of Payments

Since, owing to their underdeveloped economic structure and to their low technological standards, the developing countries are unable to achieve advantageous commodity exchange with the advanced countries, foreign trade will for long decades remain the neuralgic point of economic growth.

Another thing to be remembered is that economic growth in these countries raises the import demands more rapidly than the export capacities and, in addition to this, most of these economies are import-sensitive.

Hence particular care should be taken when investigating the question whether or how far the expected rise of imports can be counterbalanced by the increase of exports.

Let us assess first the import needs. Imports consist of the following parts:

a) The import needs of the production sectors amounting to

$$\sum_{i=1}^{i=8} x_{9,i} \text{ (in Table on p. 590).}$$

On the basis of the input-output balance showing the present state, the import input coefficients  $a_{9,i}$  can be calculated like the coefficients of the current inputs, that is

$$\text{coefficient of current import input} = \frac{\text{import input of the sector}}{\text{gross production of the sector}}$$

Accordingly, the various import input coefficients have the following meaning:

$a_{9,1}$  = the import input necessary for the unit production of the mining sector,  
 $a_{9,2}$  = the import input necessary for the unit production of the power-producing sector,  
 ... etc.

The import needs of the production sectors can be described with these coefficients as follows:

$$\sum_{i=1}^{i=8} I_i = \sum_{i=1}^{i=8} a_{9,i} X_i = a_{9,1} X_1 + a_{9,2} X_2 + a_{9,3} X_3 + a_{9,4} X_4 + a_{9,5} X_5 + a_{9,6} X_6 + a_{9,7} X_7 + a_{9,8} X_8. \quad (14)$$

This enables us to find out the import input demand of the sectoral outputs projected for the end of the plan period. The projected values  $X_1, X_2, \dots, X_8$  are substituted and multiplied by the import input coefficients  $a_{9,i}$  determined for the present period.<sup>19</sup>

- b) The import of staple consumption goods,  $I_{14}$ ,
- c) The import of luxury consumption goods,  $I_{15}$ ,
- d) Investment goods imported for production, state investment and infrastructural investment purposes,  $I_{16}$ ,  $I_{17}$ , and  $I_{18}$ ,
- e) The utilization of imports for state administration, education and health purposes,  $I_{19}$  and  $I_{20}$ .

The amount of goods for staple consumption to be imported can be determined by collating the increase of the population, possibly of the population engaged outside the traditional sector, and the anticipated agricultural produce, as well as other staple produce. Part of this

<sup>19</sup> The corrections and modifications of the import input coefficients must, naturally, be re-examined for the possibility of replacing part of the import with domestic production launched in the plan period.

import can also be treated as the function of national income or of the per capita income.<sup>20</sup> The higher the income, the greater the import need of consumption commodities.

Expressed in a formula:

$$\text{Import}_{\text{staple cons.}} = c_{\text{import}} \times Y \quad (14a)$$

i.e. the import of staple consumption goods is the function of the national income ( $c_{\text{import}}$  is the coefficient showing the ratio of the import of staple consumption goods to the national income, which can be expressed on the basis of the present period). The following formula is also used:

$$\text{Import}_{\text{staple cons.}} = c_{\text{staple}} P - X_7 - X_8 \quad (14b)$$

i.e. the import of the staple consumption goods is equal to that part of the earnings of the total population which cannot be covered by marketing and traditional agriculture. The symbols mean:

$c_{\text{staple}}$  = the per capita annual staple consumption,  
 $P$  = population,  
 $X_7, X_8$  = the total production of the marketing and the traditional agricultural sectors (for sake of simplicity, other staple products are neglected).

If the agricultural sector producing for the market produces a substantial amount of goods other than food, that amount is, naturally, to be deducted from  $X_7$ .

If the population and the production of the traditional sector is left out of account, the following formula is obtained:

$$\text{Import}_{\text{staple cons.}} = c_{\text{staple}} \times (P - P_8) - X_7 \quad (14c)$$

that is, the import needs of staple consumer goods is equal to the difference between the needs of the population (earning and family members) engaged outside the traditional sector ( $P - P_8$ ) and the production of agriculture producing for the internal market.<sup>21</sup>

The import of luxury consumer goods can be handled as a function of the national income or (more exactly) of the per capita income, i.e.

$$I_{\text{lux.}} = c_{\text{lux. import}} \times Y \quad (15)$$

i.e. the import of luxury consumer goods is the function of the national income ( $c_{\text{lux. imp.}}$  = the coefficient showing the ratio of the import of luxury consumer articles to the national income which can be calculated on the basis of the present data), or

$$I_{\text{lux.}} = c_{\text{lux. per cap. import}} \times \frac{Y}{P} \quad (15a)$$

that is, this import is the function of the per capita income ( $c_{\text{lux. per cap. import}}$  = the coefficient showing the ratio of the per capita luxury consumer goods import to the per capita income, which can again be calculated from the present data).

Yet the import of luxury consumer goods can also be treated simply as a quantity that can be determined independently. In this case our starting point is that this part of the import does not depend on economic variables but partly on the political and economic pressure effected by the richer social groups showing an interest in these goods and by the foreign or domestic businessmen interested in foreign trade, and partly on the strength of the state power,

<sup>20</sup> We must realize that in an economy of dual structure the per capita income reflects only approximately the import needs in consumption goods, since food import may become necessary also for the traditional sector. The import in this respect is rather the function of population growth.

<sup>21</sup> When examining the import of staple consumption goods, the import of various light-industry products may be considered in addition to that of agricultural products. The above formulae rely on the assumption that among the staple consumption goods only food imports are needed, the other goods of mass consumption are produced at home.

that is, on the relationship between these two. It may be assumed that the state power wishes to reduce the import of luxury commodities in order to raise other imports of greater importance for economic growth, yet the wealthy layers and the businessmen interested in foreign trade intend to increase this type of import.

The import needs of the investments can be computed in the following manner:

a) relying on the import input coefficients established for the investments made in the recent past (present), we determine the import needs for the projected investments arising in the field of the complementary imports,

b) relying on the difference between the total investment need and the amount of investment goods the economy is able to produce, we determine the needs of the competitive import.<sup>22</sup>

For computing the import needs of the infrastructural investments, of administration and education, we start from the empirical fact that the ratio of the infrastructural investments to the productive investments is more or less constant, and the present ratio can be determined approximately.<sup>23</sup> The amount of imports needed by the state administration can be assumed to grow parallel to the increase national income, whereas the rise in the educational expenditure should be determined on the basis of the principle of education planning described in Chapter 11. All three calculations must allow for the various major individual projects (the construction of a harbour or a dam, a building for the administration, for universities, etc.).

The next step is to determine the expected export. This is the most complicated problem in planning foreign trade or even of national economic planning as a whole. While in the case of import the internal needs can be safely established, and theoretically any conceivable commodity can be bought on the world market if foreign currency is available for it: in the case of export it may occur that, owing to a decreased demand or over-supply on the world market, certain commodities cannot be sold at all or only at very low prices.

The correct determination of the expectable export is, however, an extremely important task since investment and thereby also the economic development of a country largely depend on the amount of commodities that can be imported, this in turn depending on export (disregarding, for the time being, the possibility of receiving foreign aids and loans).

From the point of view of trade policy the anticipated export can be divided into two categories:

a) export transacted outside foreign-trade agreements or international conventions. This type is known to be the function of the market trends:

b) export transacted on the basis of foreign-trade agreements (concluded, as a rule, for a few years), or quota conventions. This type of export can be assessed with greater safety. (We are, naturally, well aware of the fact that the quotas are not equivalent to delivery obligations, nevertheless they indicate certain commercial-political endeavours).

If these two types of export are marked  $E_1$  and  $E_2$ , the total export will be

$$E = E_1 + E_2. \quad (16)$$

Since the trends in  $E_2$  can be predicted with a certain accuracy from the foreign trade agreements and conventions, only  $E_1$  remains to be estimated. It may be assumed that export  $E_1$  (to countries with which no foreign-trade agreements exist) depends on the growth of the

<sup>22</sup> Complementary imports comprise the goods that cannot be produced in the country and, in this sense, complete domestic production. Competitive import comprises goods that can be produced in the country yet are not produced in the quantities required. In practice these two types of import cannot always be clearly distinguished since very few are the goods that cannot be produced in a country at the price of great efforts and costs. In our case this distinction is of even lesser significance because, at present in most developing countries, almost all imported investment goods are of complementary nature. It is, however, expedient to use this distinction since it enables us to tell apart the import needs anticipated on the basis of the present from these that will derive the planned economic growth.

<sup>23</sup> Under certain condition this ratio, too, may shift as, for instance, when heavy infrastructural investments become necessary at the time when industrialization is started.



national income of the buying countries,<sup>24</sup> whence

$$E_1 = e Y_{\text{ext.}} \quad (17)$$

where

$Y_{\text{ext.}}$  = the national income of the buying countries,  
 $e$  = the ratio of the national income of the buying countries to the quantity of goods bought from the developing countries.

Formula (17) can be written in a more handy form:

$$\frac{\Delta E_1}{E_1} = y_{\text{ext.}} \quad (17a)$$

where

$y_{\text{ext.}}$  = the growth rate of the national income of the buying countries,  
 $\Delta E_1/E_1$  = the growth rate of export  $E_1$ .

More accurate figures can be obtained if the export to the buying countries is determined for each individual country, if the expected growth of the national income for each of them is taken from the national accounting or economic plan of the country in question.

Yet the value of export does not depend only on the national income of the buying countries but also on the competition and price conditions on the world market and on the elasticity of the demand for the products of the developing country in question. With regard to these factors, Equation (17a) can be written in this form

$$\frac{\Delta E_1}{E_1} = y_{\text{ext.}} \times \frac{p_{\text{export}}}{p_{\text{import}}} \times g_{\text{elast.}} \quad (17b)$$

where

$p_{\text{export}}$  = index of export prices,  
 $p_{\text{import}}$  = index of import prices,  
 $g_{\text{elast.}}$  = coefficient of the income elasticity of demand in the buying countries, toward the principal export goods of the developing country.<sup>25</sup>

The next step is to find out whether the export capacities of the economy, i.e. the parts of the production of the various sectors assigned for export namely,

$$\sum_{i=1}^{i=g} x_{i,13} \quad (\text{in Table on p. 591})$$

are sufficient to cover the export determined above. If not, then the economic plan must be modified accordingly.

We do not want to complicate our model with the coefficients for converting the sums calculated at domestic prices to the foreign currency in which the accountings of the country's foreign trade are being made (US dollar, pound sterling, etc.), and vice versa. In reality, however, the establishing of such coefficients is inevitable.

In the case of imports, the coefficients are likely to differ according to the nature of goods. In all probability, the cost of investment goods, materials and semifinished goods etc. expressed in foreign currency will be converted to the national currency at the lowest ("official")

<sup>24</sup> The changes in the national income of the buying countries go, naturally, parallel to the transformation of the consumption structure, whence the marketability of certain products may decrease and involve the deterioration of foreign-trade ratios.

In the concrete cases the factors of foreign-trade policy (customs duty, etc.) should also be reckoned with.

<sup>25</sup> If the income elasticity of demand for the exported goods abroad is greater than unity, then  $g > 1$ , if, it is below 1, then  $g < 1$ .

rate, and no customs duties will be imposed; because the state imports such goods either on its own account or else it desires to make their purchase attractive for the domestic capitalist. (But when calculating the ratio of imported investment goods to the total investment, it would be self-deception to calculate the former at this low price basis because in reality they did cost more to the national economy.) This may be the case also with some very important kinds of staple food or industrial consumer goods. As for other consumer goods, it is probable that higher rates of conversion will be used and some customs duties, consumption taxes, etc. levied which, in the case of luxury goods, may raise the domestic price to a multiple of the original import price. Evidently, these differences are highly important because when, according to Formulae (14) and (15), we calculate the value of imports for consumption, we can apply these high domestic prices, while in the balance of trade the same items will figure at their real import cost.

In the case of exports, the products of the export-oriented agricultural branches deserve special attention. In many developing countries, the state guarantees for the producers some fixed price which, depending on the fluctuations of the world market price, will exceed the latter or lag behind it, as the case may be. In other instances, state subsidies are granted to enhance the export or, inversely, export duties or taxes are levied. The situation will be somewhat similar in the case of certain manufactured goods, their export being subsidized by the state, hence permitting their producers to fix lower export prices than would be required by their cost position. Thus, the values of export at domestic prices (figuring in the input-output balance) and at world-market prices (figuring in the balance of trade and in the balance of international payments) are also likely to show considerable discrepancies.

In order to account for all this, the balance of national income must have an item of "foreign-trade price differences", which will be either positive or negative, as the case may be. This item must be clearly distinguished from that called "national income produced (or consumed) abroad", which represents simply the balance of trade, *calculated at domestic prices*.

*Example:*

Let us assume that the annual production and the inputs of imported commodities in the various production sectors during the basis period were as follows:

Sector	Production	Import inputs	Coefficient of import inputs
	MU millions		
Mining	150	5	0.03
Power production	100	2	0.02
Building industry	120	4	0.03
Heavy industry	200	20	0.10
Light industry	400	50	0.12
Agriculture producing for export	300	15	0.05
Agriculture producing for the market	500	20	0.04
Traditional sector	500	0	0.00
Total	2,270	116	0.05

The investments and the import goods need for them in the previous five-year period were as follows:

Sector	Investments	Import of investments goods	Ratio of imported investment goods to total investments
	MU millions		
Mining	200	50	0.25
Power production	100	60	0.60
Building industry	50	5	0.10
Heavy industry	200	140	0.70
Light industry	300	60	0.20
Exporting agriculture	200	20	0.10
Marketing agriculture	200	10	0.05
Traditional sector	0	0	0.00
Total	1,250	345	0.28

For the current year the following import items arise (MU millions):

for staple consumption	150
for luxury consumption	50
for infrastructural investments	20
for administration	5
for education	5
total	230

If we assume that the value of import goods necessary for current production is MU 116 million, and we add one-fifth of the import used for investments during the previous five years ( $345 : 5 = 69$ ), we obtain as total import for the current year  $230 + 116 + 69 =$  MU 415 million.

This is covered by the following export items (in MU millions):

Sector	Gross output	Export	Ratio of export to output
Mining	150	50	0.30
Power production	100	0	0.00
Building industry	120	0	0.00
Heavy industry	200	0	0.00
Light industry	400	50	0.125
Exporting agriculture	300	300	1.00
Marketing agriculture	500	0	0.00
Traditional sector	500	0	0.00
Total	2,270	400	0.18

The remaining deficit of MU 15 million is covered by foreign loan and aid.

The production of our sectors is scheduled to attain the following values by the end of the five-year period (in MU millions):

Sector	Output after 5 years	Increment of output in 5 years
Mining	220	70
Power production	120	20
Building industry	140	20
Heavy industry	300	100
Light industry	600	200
Exporting agriculture	600	300
Other marketing agriculture	600	100
Traditional sector	600	100
<b>Total</b>	<b>3,180</b>	<b>910</b>

To achieve this production, the following investments are necessary during the coming five years (according to the capital coefficients established on the basis of the data of the basis period, in MU millions):

mining	$70 \times 5 = 350$
power production	$20 \times 5 = 100$
building industry	$20 \times 4 = 80$
heavy industry	$100 \times 5 = 500$
light industry	$200 \times 2 = 400$
exporting agriculture	$300 \times 3 = 900$
other marketing agriculture	$100 \times 2 = 200$
traditional sector	$100 \times 0 = 0$

total                      2,530

For the sake of simplicity let us disregard now the possibilities of curbing some of these items and deal only with the foreign-trade effects of production growth and investments. On the basis of the import input coefficients of current production and of investments, the required annual import will assume the following proportions by the end of the five-year plan period (one-fifth of the five-year total is calculated for one year):

Sector	Import needed for current production	Import needed for investments
	MU millions	
Mining	$220 \times 0.03 = 6.6$	$70 \times 0.40 = 28$
Power production	$120 \times 0.02 = 2.4$	$20 \times 0.60 = 12$
Building industry	$140 \times 0.03 = 4.2$	$16 \times 0.10 = 1.6$
Heavy industry	$300 \times 0.10 = 30.0$	$100 \times 0.70 = 70$
Light industry	$600 \times 0.12 = 72.0$	$80 \times 0.20 = 16$
Exporting agriculture	$600 \times 0.05 = 30.0$	$180 \times 0.10 = 18$
Marketing agriculture	$600 \times 0.04 = 24.0$	$40 \times 0.05 = 2$
Traditional sector	$600 \times 0.00 = 0.0$	$0 \times 0.00 = 0$
<b>Total</b>	<b>169.2</b>	<b>147.6</b>

In addition to these, the following import needs may be anticipated by the end of the five year period:

- a) the import of staple consumer goods will grow approximately parallel to the population, by 10 per cent over the five years, i.e. it will amount to MU 165 million,
- b) the consumption of imported luxury articles is likely to be curtailed by the government on account of political considerations, whence only a 4 per cent growth can be anticipated, i.e. it will amount to MU 52 million,
- c) the planned import for infrastructural investments is MU 35 million,
- d) the planned import for administration and education, etc. is MU 17 million.

Hence the total anticipated import need will be MU 585.8 million by the end of the five years.

What exports can be expected to cover these imports?

Let us assume that, out of the present import amounting to MU 415 million, 100 million are transacted under long-term foreign-trade agreements (and paid for by an equal value of exports); and that in five years the export under the same agreements can be raised to MU 170 million.

The national income of the countries with which no foreign-trade agreements have been concluded is expected to rise by about 20 per cent during the coming five years. Thus, as a first approximation it could be said that our export to these countries can be increased at this same rate, i.e. may rise to MU 360 million from the present 300. Yet it is expedient to realize that in the case of certain of our export commodities the income elasticity of demand is lower than unity, whence our export possibilities cannot grow quite in proportion to the income of the countries in question. Instead of 20 per cent, it is safe to reckon with a rise of 18 per cent, i.e. MU 354 million. Moreover, in compliance with the tendencies in the long-run development of world prices, it seems likely that the index of our export prices (taking the present index for 100) will be 95 while the index of our import prices may be assumed to remain unchanged. Therefore the value of all products exportable to these countries will be

$$354 \frac{95}{100} = \text{MU } 3,363 \text{ million.}$$

Hence the difference between export and import will be  $585.8 - (170 + 336.3) = \text{MU } 79.5$  million.

Let us now work out the amount of exportable products on the basis of the present ratio of the production in the various sectors to the quantity of products exportable therefrom.<sup>26</sup>

Sector	Production (MU millions) 5 years from now	Ratio of export to output	Export (MU millions) 5 years from now
Mining	220	0.300	66.0
Power production	560	0.000	0.0
Building industry			
Heavy industry			
Light industry	600	0.125	75.0
Exporting agriculture	600	1.000	600.0
Other marketing agriculture and traditional sector	1,200	0.000	0.0
Total	3,180	0.233	741.0

<sup>26</sup> In our computations we have so far not taken into account the shifts that may occur in the ratio of the export to the production in the plan period.

Domestic production and the internal market could permit to increase exports to a certain extent, but the conditions abroad do not seem favourable for this.

In this situation the planners can choose between several alternatives, or more exactly, between their different possible combinations:

- a) to try to obtain foreign aids or loans to cover the deficit of MU 79.5 million;
- b) to develop agriculture producing for the internal market instead of the agriculture producing for export, reducing thereby the import of staple goods,
- c) by pursuing an elastic and clever marketing policy to try to sell more abroad (that is, to increase the country's present share of the world market against its rivals); there are various ways and means to achieve this, for instance, the opening of new markets or the conclusion of bilateral agreements with countries which are anxious to sell and thereby inducing them to buy to a higher extent; by tying up certain imports to export,
- d) to try to sell more products of the agriculture producing for export even at lower prices,
- e) to reduce the investment plan and thereby also the import needs,
- f) to change the structure of the investment plan, to develop the less import-absorbing sectors to the detriment of the more import-absorbing investments.

All these dispositions have, naturally, multiplying effects which should be taken into account, if possible, with the help of the model, or else by considerations not built into it.

The condition of the foreign-trade equilibrium can be formulated as follows:

$$\Sigma I = \Sigma E + D \quad (18)$$

where

- $I$  = total import,
- $E$  = total export,
- $D$  = the possible deficit of the foreign-trade balance covered by foreign aids or loans.

The equation can be written in a more detailed form:

$$\sum_{i=1}^{I=8} a_{9,i} X_i + I_{\text{staple cons.}} + I_{\text{lux. cons.}} + I_{\text{infr.}} + I_{\text{adm.}} + I_{\text{educ.}} = \sum_{i=1}^{I=8} E_i + D. \quad (18a)$$

On the import (left) side the various  $I$ -s can be replaced by different formulae, for instance, by (14a) or (15a) which we want to use under the given conditions to estimate the trends in the corresponding import items. On the export (right) side, for the  $E_i$ 's we may substitute either the products obtained from the multiplication of the output of each sector by the sector's export rate, or else the sums of  $E_1$  and  $E_2$ , of which the former must be determined on the ground of the long-term trade agreements, the latter by using Formula (17c); that is: the products of the sectoral production and of the export output

$$\sum_{i=1}^{I=8} I = e_i X_i \quad (18b)$$

where

- $e_i$  = the ratio of the export of Sector  $i$  to its gross output;
- $X_i$  = the gross output of sector  $i$ ;

or

$$\Sigma I = E_2 + \left( E_1 \times y_{\text{ext.}} \times g_{\text{elast.}} \frac{p_{\text{export}}}{p_{\text{import}}} \right). \quad (18c)$$

(It should be noted, that  $E_2$  refers here to the plan period, while  $E_1$  to the present period from which the statistical data are obtained.)

## 2. The Equilibrium of the Budget

The equilibrium of the budget means that the expenditures and incomes of the state should be equal or nearly equal over a definite period of time. In a centrally directed economy, however, the budget is essentially more than the sum of the processes taking place within the state finances, since the redistribution of the national income (in the interest of economic development) also goes mostly through the budget. It logically follows that the problem of a balanced budget is inseparable from the trends in the economic processes arising under the impact of, or influenced by, the state expenditures. These correlations have been discussed in detail in Part Two.<sup>27</sup> If the state expenditures are substantially higher than the revenues, a surplus of purchasing power arises and exerts an inflationary pressure.

The equilibrium of the budget requires the state to cover the state investments, the costs of state administration, of education, health, etc. and in general all state spendings, from the direct taxes levied on enterprises and privates, from the indirect taxes and other sources including the foreign aids granted to the state. In algebraic form:

$$\begin{aligned} \sum_{j=1}^{i=8} x_{11,j} + t \left( \sum_{i=1}^{i=8} x_{i,14} + I_{\text{staple}} \right) + t \left( \sum_{i=1}^{i=8} x_{i,15} + I_{\text{lux}} \right) + \text{other state incomes} = \\ = \sum_{i=1}^{i=8} x_{i,17} + \sum_{i=1}^{i=8} x_{i,18} + \sum_{i=1}^{i=8} x_{i,19} + \sum_{i=1}^{i=8} x_{i,20} + \text{other state expenditures} . \end{aligned} \quad (19)$$

In words: all state tax income from the enterprises + turnover tax from staple goods + turnover tax from luxury goods + other incomes (aids, customs, duties, income taxes, etc.) = all state expenses for productive investments + infrastructural investments + material expenditure for state administration + material expenditure for education + other state expenses, such as personal expenses of administration and education, public health, cultural, etc. expenses. (The symbol  $t$  in the formula means the rate of the turnover tax which may, naturally, differ for staple goods and luxury goods and also within these types of goods.)

If there are state-owned enterprises in the country, their profits (i.e. the part they have to pay into the central budget) should also figure among the state incomes.

The size and the equilibrium of the state budget are always important elements of our model but their importance is especially great if an essential part of the investments is made by the state; i.e. if the state undertakes an important role in securing economic growth. In such cases it is highly important to ensure a dynamic rather than static budget equilibrium (see Note 27). If a government, having succeeded in ensuring budget equilibrium at a low level of state incomes and expenditures, were to stick to this level, this attitude would become a serious obstacle to economic growth. The question arises how to raise the state revenues and how to reduce the state spendings not promoting economic growth. Let us analyse the elements of Equation (19) from this point of view:

The first member of the income side is

$$\sum_{j=1}^{i=8} x_{11,j}$$

<sup>27</sup> The budget equilibrium should, of course, be understood in a dynamic sense, and the static equilibrium must not be insisted upon when with the help of further means certain economic processes can be started which liquidate the bottlenecks with complete, or almost complete, certainty.

Also Keynes's theory mentions that in certain cases—for instance when both unused production capacities and unemployment appear simultaneously—the budget deficit is useful and necessary. In this case the budget deficit creates purchasing power which enlivens the slowed-down economic activities without evoking substantial inflation, as long as the unused capacities and manpower are not fully utilized. When full employment is attained however the budget equilibrium must be restored because any further deficit is liable to cause strong inflation. Since, however, in the economically less developed countries the above-mentioned conditions are not likely to coincide, the general assumption should be that any lasting and sizeable budget deficit causes inflation.

that is, the tax imposed on the enterprises, which can also be written as

$$\sum_{j=1}^{j=8} a_{11,j} X_j$$

where  $a_{11,j}$  is the tax rate related to the gross output. The rate of tax can, naturally, also be related to the wages paid, to the profits etc. In each case different incentive forces will arise. The budget income may be raised also by raising the rate of tax. This, of course, has its strict limits: too high taxes deter the businessmen from increasing the production capacities.

The next member, the taxation of the staple goods

$$t \left( \sum_{i=1}^{i=8} x_{i,14} + I_{\text{staple}} \right)$$

has its limits, too, since a high tax rate may essentially decrease the standards of living. This, in turn, not only causes political tensions but may act as a direct obstacle to economic development, since falling real wages undermine the attitude to work and may incite against the increase of productivity.

The third member, the turnover tax imposed on luxury goods,

$$t \left( \sum_{i=1}^{i=8} x_{i,15} + I_{\text{lux}} \right)$$

is one of the surest sources of the funds necessary for economic growth because the imposition of higher taxes on luxury articles does not impede directly economic development. On the contrary, part of the incomes spent in this non-productive way may be diverted by the state to productive purposes. From the point of view of the political power, however, it must be carefully weighed whether the government is strong enough to carry through measures of similar character.

Among the other state incomes, the foreign economic loans or aids granted to the state should be considered first. All foreign aids not linked to burdensome political conditions are advantageous because they secure foreign currency for the state and permit to acquire investment goods that can only be bought abroad.

Also, by regrouping the state expenditures it may seem possible to raise considerable sums for productive investments directly influencing economic growth. This means in practice that by a reasonable restriction of infrastructural investments, of the costs of state administration and of educational expenses, as well as by reducing other state spendings, the sum assigned to productive investments can be increased.

But here, too, certain problems arise. The infrastructural investments, for instance, cannot be reduced beyond a certain limit because an appropriate infrastructure is a precondition of economic growth. The proper balance should be found between the investments serving the development of production, on the one hand, and that of the infrastructure, on the other. We disprove of the view that the state should make only infrastructural investments, i.e. create but the framework for economic development and leave the production investments to private entrepreneurs. On the other hand, there is no doubt that all or most of the infrastructural investments have to be made by the state which, then, must have the sums necessary for this purpose.<sup>28</sup> Otherwise the infrastructure will constitute, sooner or later, a serious bottleneck hampering further development and making production more expensive.

The educational expenses are closely related to the availability of manpower necessary for economic growth, and especially to professional training. Hence there is little chance of reducing them; they should rather be increased. This, of course, does not mean that the

<sup>28</sup> There are, of course, exceptions to this rule since in some developing countries the foreign private enterprises do engage also in infrastructural investments.



costs per trainee cannot be decreased, since in this respect overspending is all too frequent. Nevertheless, there are certain possibilities of planning (estimating) also in this field. If the state expenditure for education per pupil, the number of pupils per teacher, the investment costs of the accomodation and training per pupil are known, then the expected trend in educational spending can be estimated and brought in harmony with the needs for trained manpower. (The latter must figure in the balance of manpower, see later.)

It is hardly possible to reduce the research costs which are included in the educational costs (though they should be shown separately) because these are closely linked with economic growth.

The possibilities of cutting state administration expenses are limited. Clearly, an oversize administration does not promote economic growth; but its reasonably organized operation involves substantial costs, and these belong to the indirect preconditions of economic growth.

The widest possibilities of reduction (and of diversion to productive purposes) may be found at such budget items as the military expenses exceeding the inevitable requirements of national security, and the purely "representative" expenditures like the construction of pompous government buildings, the import of expensive automobiles, helicopters and planes for the top brass, the outrageous spending on embassies abroad, and so on.

### 3. The Equilibrium of the Consumer Market

The equilibrium of the consumer market means that the sum total of the consumer goods output of the various sectors and of the import of such goods is equal to the purchasing power, the latter consisting of the wages paid and of the part of profits of the private enterprises destined to consumption purposes:

$$\sum_{i=1}^{i=8} x_{i,14} + \sum_{i=1}^{i=8} x_{i,15} + I_{\text{staple}} + I_{\text{lux.}} = \sum_{i=1}^{i=8} x_{10,i} + q \sum_{i=1}^{i=8} x_{12,i} + W \quad (20)$$

i.e. the part, used for staple consumption, of the production of all sectors + its part used for luxury consumption + the import of staple consumer goods + the import of luxury consumption goods = the wages paid in the productive sectors + a certain part of the profit of the private capitalist sector + the wages and salaries of those employed outside the production sector.

The symbols:

$q$  = the fraction of enterprise profit assigned to consumption,

$W$  = wages of those employed outside the production sector; this can be estimated approximately because in the balance of manpower the number of workers employed in this field (the employees of the state administration, of public education, health, etc.) can be established in advance and this can be multiplied by their average income.

Since wages and profits can also be expressed as a definite part of the relevant sector, Equation (20) can be written also in the following form:

$$\sum_{i=1}^{i=8} x_{i,14} + \sum_{i=1}^{i=8} x_{i,15} + I_{\text{staple}} + I_{\text{lux.}} = \sum_{i=1}^{i=8} a_{10,i} x_i + q \sum_{i=1}^{i=8} a_{12,i} x_i + W \quad (20a)$$

where

$a_{10,i}$  = the portion of wages and salaries in the total productive input of sector  $i$ ,

$a_{12,i}$  = the portion of profits in the total productive input of sector  $i$ .

Equation (20a) can be divided into two parts representing separately the markets of staple consumption goods and of luxury consumption goods. In addition it can be taken into

account that the state may impose turnover taxes. In this case the sum total on the demand side must be reduced by the amount of turnover tax described in the previous item, i.e. by

$$t \left( \sum_{i=1}^{i=8} x_{i,14} + I_{\text{staple}} \right) \quad \text{and} \quad t \left( \sum_{i=1}^{i=8} x_{i,15} + I_{\text{lux.}} \right).$$

Hence the two equations of equilibrium on the consumers' market can be written in the following forms:

$$\sum_{i=1}^{i=8} x_{i,14} + I_{\text{staple}} = \left( \sum_{j=1}^{j=8} a_{10,j} X_j \right) + W - t \left( \sum_{i=1}^{i=8} x_{i,14} + I_{\text{staple}} \right) \quad (20b)$$

and

$$\sum_{i=1}^{i=8} x_{i,15} + I_{\text{lux.}} = \left( \sum_{j=1}^{j=8} a_{12,j} X_j \right) - t \left( \sum_{i=1}^{i=8} x_{i,15} + I_{\text{lux.}} \right). \quad (20c)$$

These equations rely on the assumption that the wages are all spent for buying staple consumer goods and the utilized part of the profits are assigned to buying luxury items. This assumption obviously does not fully correspond to the facts yet in first approximation these two equations do show the anticipated demand on the market of staple and/or luxury goods.<sup>29</sup>

#### 4. The Equilibrium of the Investment Market

The equilibrium of the investment market means that the investment inputs of the productive sectors and the import of investment goods must cover the planned demand of such goods:

$$\sum_{i=1}^{i=8} x_{i,16} + \sum_{i=1}^{i=8} x_{i,17} + \sum_{i=1}^{i=8} x_{i,18} + I_{\text{invest.}} = \sum_{i,j=1}^{i,j=8} B_{i,j} + \text{infrastructural investments.} \quad (21)$$

The home production of investment goods and their import ( $I$ ) must equal all productive and infrastructural investments planned.

#### 5. The Balance of Manpower

The last subject of our investigations is the balance of manpower, yet by no means the last in importance: it has a vital significance for economic growth and must be given due attention in long-range planning. Manpower of adequate quantity and quality is indispensable for increasing production capacities.

The quantitative requirements of manpower are not likely to raise particular problems since in most developing countries the potential manpower is not fully utilized; there exists open and/or latent unemployment in some form or other.

Unemployment, underemployment or unutilized manpower reserve is understood to indicate the existence, in the economy or in part of it, of such groups as

a) fail to find opportunity of work although would be willing to work (this type of unemployment is chiefly an urban phenomenon);

b) do some work but less than what they would be willing and capable to do (to this type belongs the latent agricultural unemployment);

<sup>29</sup> Depending on the actual situation, our model may be improved by considering that some part of the enterprise profits goes abroad, another part, however, goes perhaps to the state in the form of royalties (e.g. oil, mining, etc.). Moreover, if necessary, the income of feudal estates, i.e. its part destined to consumption should also be accounted for.

c) do work but the efficiency of their work is almost nil, that is, if they did not work, this would not essentially reduce production in the sector where they are engaged (this type of unemployment characterizes chiefly the traditional economies);

d) do work but the efficiency of their work would be much higher with better nutrition, improved work conditions, better training, etc.

In our model we assume that the prevailing types of unemployment permit to transfer manpower from the sector in question to another one without reducing its production. Types b) to d) occur mostly in the traditional sector and permit to extract labour from it without reducing its production. It is even likely that, if this process is combined with other measures, less manpower will produce more in the sector in question.

*Scheme Table of the Balance of Manpower by Qualification*

Sectors	Manpower of different qualifications employed in the sectors					Production of the sector
	no formal education	primary education	skilled worker	secondary education	higher education	
Mining						
Power production						
Building industry						
Heavy industry						
Light industry						
Agriculture producing for export						
Agriculture producing for market						
Traditional sector						
Non-productive sectors, administration, etc.						

Yet even in these cases costs arise in connection with the regrouping of manpower. Those working in the traditional sector do usually not live in places where industrial work can be undertaken. They must be granted the possibility of migration, given at least temporary shelter near their work, which also involves certain communal investments.

If the economy has no labour reserves, the manpower needs can be met only by the expected demographic increase (demographical calculations permit to pre-estimate the expected increase in manpower) or by extracting labour from certain branches and turning it to others. In most cases labour is extracted from agriculture. To keep up the production in this sector, and even to raise it (otherwise the rapidly growing population cannot be supplied with nourishment), preliminary investments should be planned in agriculture. The order of magnitude of the necessary investments can be established from the matrix of the investment input coefficients, or with the help of technological data.

For planning the number of manpower, Table on p. 590 should be used to calculate the coefficient of labour (wages) input in each sector on the basis of the present data. The formula to be used is

$$a_{10j} = \frac{x_{10j}}{X_j}$$

then the labour input necessary by the end of the plan period is obtained with the help of the following formula:

$$L = \sum_{i=1}^{i=8} a_{10,i} X_i + L_{\text{non-prod.}} \quad (22)$$

where

- $L$  = total manpower need,  
 $L_{\text{non-prod.}}$  = manpower need outside the production sectors,  
 $X_i$  = the planned production of sector  $j$ .

*Scheme Table of the Balance of Manpower of Higher Education by Qualification*

Sectors	Manpower of higher education employed in the sectors					Production of the sector
	building	electric engineers	mechanic	economists	others	
Mining						
Power production						
Building industry						
Heavy industry						
Light industry						
Agriculture producing for export						
Agriculture producing for market						
Traditional sector						
Non-productive sectors						

Manpower of adequate qualification can be ensured on the basis of the manpower balance shown in the Table on p. 615. In the same way as the input-output balance, this, too, shows the number of manpower of different qualification employed in the various sectors. If these quantities are related to the total production of the sector, we obtain the various labour inputs necessary for unit production in the various sectors. These are, so to say, the breaking-down of coefficient  $a_{10,j}$ . The labour input needed by the end of the given plan period is obtained in the given structure from a formula similar to Formula (22), in which the coefficient  $a_{10,j}$  referring to the total manpower needs is replaced by coefficient  $a_{10,k,j}$  expressing the given kind of manpower need and assuming the following form:

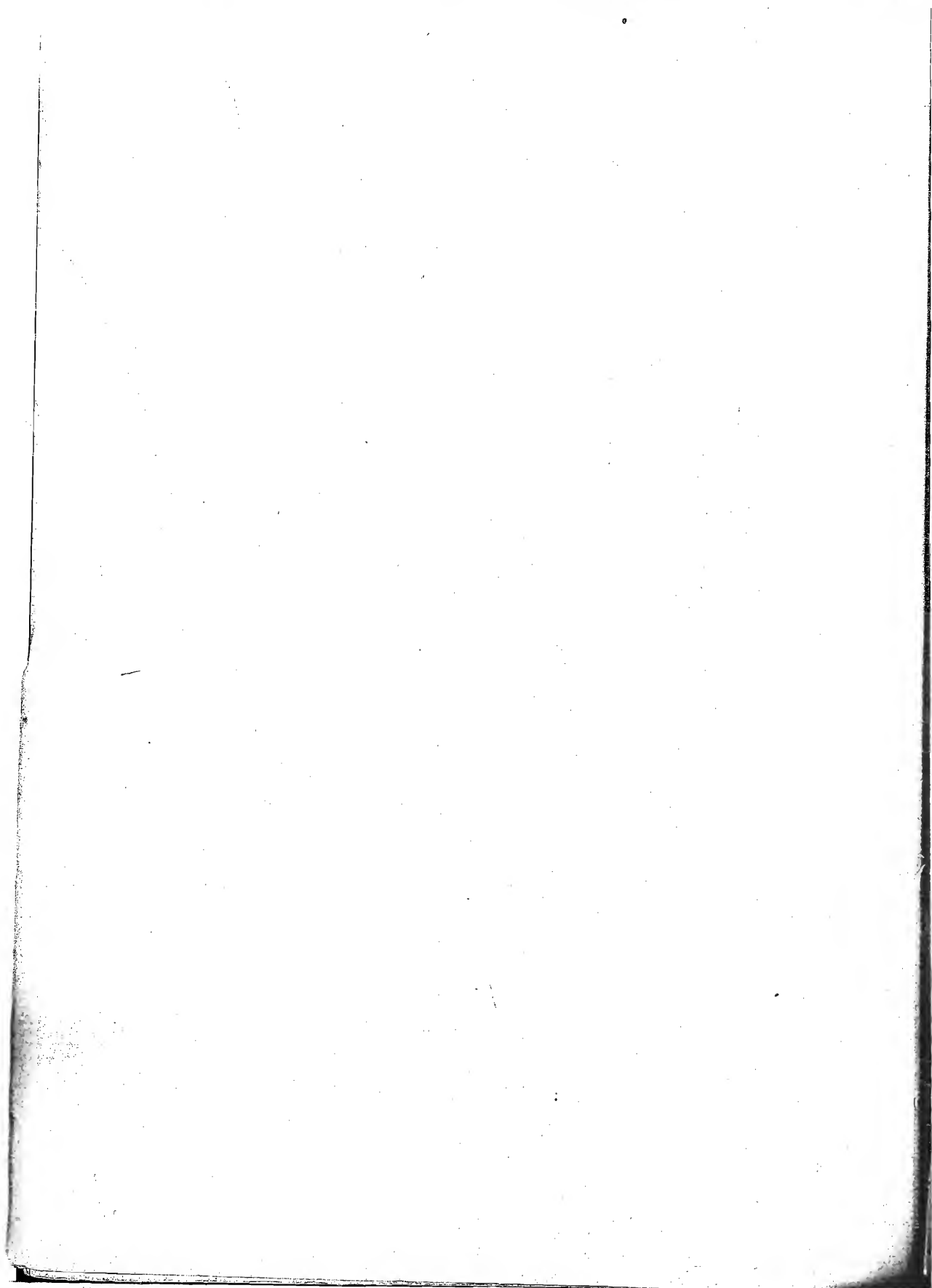
$$a_{10,k,j} = \frac{x_{10,k,j}}{X_j}$$

Hence the formula that can be used for the planning of the various types of manpower needs is

$$L_k = \sum_{i=1}^{i=8} a_{10,k,i} X_i + L_{k,\text{non-prod.}} \quad (22a)$$

The computations should be performed in the following manner: since the sectoral production anticipated for the end of the plan period is known, the production of each sector is multiplied by the coefficients expressing the various types of labour inputs, and the needs in manpower of different qualification (no formal education; primary education; skilled worker; secondary, and higher education) for each sector are added up, taking into account also the demand of the non-productive sphere.

The balance of manpower can and should be analysed in much greater detail. Table on p. 616, for instance, shows the fundamental tabulation of needs in highly qualified manpower according to professional qualifications. The planning procedure is the same as above: relying on the current data we first find out the amount of manpower of higher qualification necessary for unit production, and the coefficients thus obtained are used to multiply the planned production of each sector, then the needs in highly qualified manpower are added up in each sector.



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